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RESEARCH MEMORANDUM

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A COMPILATION OF THE PRESSURES MEASURED ON A WING

AND AILERON WITH VARIOUS AMOUNTS OF SWEEP

IN THE LANGLEY 8-FOOT HIGH-SPEED TUNNEL THIS DOCUMENT ON LOAN FROM THE FILES OF

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NATIONAL ADVISORY COMMITTEE FOR AERONAUTI

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Langley Field, Va.

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NATIONAL ADVISORY COMMITTEE FOR AERONAUTICS

RESEARCH MEMORANDUM

A COMPILATION OF THE PRESSURES MEASURED ON A WING
AND AILERON WITH VARIOUS AMOUNTS OF SWEEP
IN THE LANGLEY 8-FOOT HIGH-SPEED TUNNEL
By Richard T. Whitcomb

SUMMARY

A compilation is made in tabular form of all the pressures measured on a thin high-aspect-ratio wing and aileron with no sweep and with 30° and 45° of sweepback and sweepforward at high subsonic Mach numbers in the Langley 8-foot high-speed tunnel.

INTRODUCTION

Very little detailed information as to the aerodynamic loads on swept wings at high subsonic speeds has been available until very recently. In order to obtain some information on such loads, as well as to develop a more complete understanding of the flow around swept wings in this speed range, extensive pressure measurements have been made on the surface of a thin high—aspect—ratio wing with no sweep and with 30° and 45° of sweepback and sweepforward and several aileron deflections in conjunction with a slender midwing fuselage in the Langley 8—foot high—speed tunnel.

From the pressure data obtained, normal-force, pitching-moment, bending-moment, and twisting-moment coefficients, spanwise variations of load and twisting moment, and ratios of the normal-force coefficients for the fuselage to those for the wing have been determined. These results. are presented in references 1 and 2. The analyses presented in the references, being limited in extent, did not require reference to the large amount of detailed pressure data obtained during the investigation and none of these data are included in those reports. However, such data is useful in the prediction of the local aerodynamic loads on configurations similar to those investigated at high subsonic Mach numbers. Therefore, the pressure data that were measured on the wing during this investigation at all conditions for which over-all characteristics are given in references 1 and 2 are presented in tabular form herein. As in the case of the over-all characteristics, the data have not been corrected for the small tunnel-wall interference effects and only the results relatively free of wind-tunnel choking effects have been included. No attempt has been made to analyze any of the data presented.

SYMBOLS

The symbols used are defined as follows:

- A sweep angle between line perpendicular to plane of symmetry and quarter—chord line of unswept wing, positive for sweepback, negative for sweepforward
- δ_{an} nominal aileron deflection, measured in plane perpendicular to aileron hinge axis; positive for down deflection
- α geometric angle of attack
- P pressure coefficient $\left(\frac{p p_0}{\frac{1}{2} \rho V^2}\right)$
- p local static pressure
- po static pressure in stream
- ρ mass density of stream
- V velocity of stream

APPARATUS

For the unswept condition the wing model has an NACA 65-210 airfoil section, no twist or dihedral, and exclusive of the fuselage, an aspect ratio of 9.0, and a taper ratio (root chord/tip chord) of 2.5. The 20-percent-chord straight-sided, plain aileron extends from the 60-percent-semispan station to the end of the straight part of the trailing edge as shown in figure 1. Approximately 20 static pressure orifices were placed at each of 8 stations along the semispan in lines perpendicular to the quarter-chord line of the unswept wing as shown in figure 1.

The model was supported in the tunnel by means of a vertical steel plate as described in reference 1. Swept configurations were obtained by rotating the model with respect to the support plate. Revised tips were added for each sweep. Plan forms of the wing outboard of the fuselage with the various amounts of sweep are presented in figure 1. The aspect ratios of the wings outboard of the fuselage are 8.5, 7.0, 4.7, 6.3, and 4.1 for 0° , 30° , 45° , -30° , and -45° of sweep, respectively. Other

dimensions for the various wing configurations and the dimensions of the fuselage are presented in reference 1.

RESULTS

All the pressures measured on the wing for the geometric conditions tabulated in the index preceding the table are presented in pressure coefficient form in tables 1 to 78. Each table presents the pressure coefficients obtained for the upper and lower surfaces of the wing with a given sweep, aileron deflection, and angle of attack at the various test Mach numbers. The data obtained at each of the eight chordwise measurement stations are placed in separate horizontal groups in each table. The designations of the chordwise stations at which the data in a given group were obtained is indicated in the upper left corner of each group in the tables. The spanwise locations of the designated stations from the plane of symmetry along the swept semispan in percent of the swept semispan for each of the sweep angles are indicated in figure 1 and the following table:

Station designation	Λ = 0 ⁰	Λ = 30 ⁰	Λ = 45 ⁰	Λ = - 30°	Λ = -4 5°
A B C D E F G	11.0 20.0 30.0 43.0 56.0 64.0 80.0 95.0	12.7 21.3 30.9 43.4 55.8 63.5 78.8 93.2	14.4 22.9 32.4 44.7 57.0 64.7 79.8 94.0	7.6 16.3 26.0 38.6 51.1 58.9 74.4 88.9	5.2 14.0 23.7 36.4 49.1 56.9 72.5 87.1

The chordwise locations of the orifice tubes at each of the measurement stations in percent of the local chord are indicated in tables 1 to 78.

In most cases the nominal aileron angles listed are the same as the aileron angles actually present during the tests. For the conditions at which they differ, the actual angles may be obtained from reference 2.

Langley Memorial Aeronautical Laboratory
National Advisory Committee for Aeronautics
Langley Field, Va.

REFERENCES

- 1. Whitcomb, Richard T.: An Investigation of the Effects of Sweep on the Characteristics of a High-Aspect-Ratio Wing in the Langley 8-Foot High-Speed Tunnel. NACA RM No. 16J0la, 1946.
- 2. Luoma, Arvo A., Bielat, Ralph P., and Whitcomb, Richard T.: High-Speed Wind-Tunnel Investigation of the Lateral-Control Characteristics of Plain Ailerons on a Wing with Various Amounts of Sweep. NACA RM No. L7115, 1947.

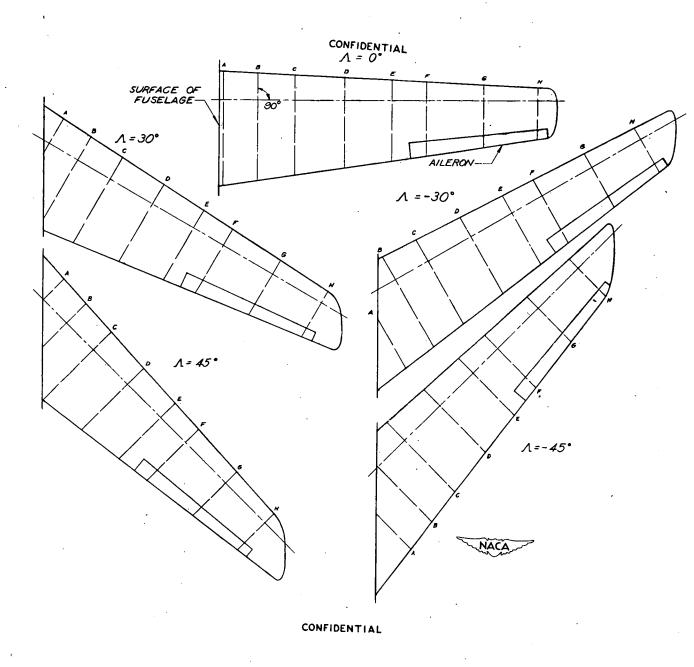


FIGURE I.- LOCATION OF ORIFICE STATIONS.

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INDEX
[All values are in degrees]

Table	Λ	δ a _n	æ	Table	Λ :	δ _{an}	α
1 2 3 4 5 6 7 8 9 0 1 1 2 1 3 1 4 5 6 7 8 9 0 1 1 2 1 3 1 4 1 5 6 1 7 8 9 0 1 2 2 2 2 4 2 5 6 2 8 9 0 3 1 3 2 3 3 4 5 6 3 7 8 3 9	000000333333344444 	00000000000000000000000000000000000000	202470202470927090247092709024790247902	40 41 42 43 44 45 46 47 48 49 50 51 52 53 53 55 55 55 57 58 59 60 60 60 60 60 60 60 60 60 60 60 60 60	33333344444447777555	5.0 5.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10	474024742742740247402474024740247427427

TABLE 1

 $\begin{bmatrix} \Lambda = 0^{\circ}, \ \delta_{\mathbf{a}_{\mathrm{n}}} = 0^{\circ}, \ \alpha = -2^{\circ} \end{bmatrix}$ CONFIDENTIAL

							CONFID	ENTIA	<u> </u>						
 			UPPE	SURPA				-		T	LOWER	SURFAC			
Tube	Per- cent				Number	Ι-	,	Tube	Per-			Mach N	umber	ı	
A 1 2 3 4 5 6 7 8 9 10	2.0 6.0 15.0 27.5 40.0 50.0 59.0 67.5 77.5 87.5 96.0	0.60 0.430 .125 091 208 298 250 250 068 .008	0.75 0.475 .160 088 237 365 366 307 080 .020 .070	0.80 0.492 .178 080 247 420 430 347 064 027 080				86 87 88 89 90 91 92 93	3.0 10.0 25.0 41.0 52.5 62.5 72.5 84.0 94.0	-0.705 	-0.800 	0.80 -			
B12 13 14 15 16 17 18 19 20 21 22	2.0 6.0 15.0 27.5 40.0 50.0 59.0 67.5 77.5 88.0 95.3	.450 .120 109 260 350 355 308 248 080 .058	.500 .162 107 297 431 440 370 330 072 .074	520 182 091 308 498 520 438 357 069 .082				95 96 97 98 99 100 101 102 103	3.0 10.0 25.0 41.0 52.5 62.5 72.5 86.3 94.5	652 408 368 343 268 170 050 .090	800 576 460 440 326 191 047 .110	795 760 540 545 333 182 030 -131 -209		,	
C23 24 25 26 27 28 29 30 31 32 33	2.0 6.0 15.0 27.5 40.0 50.0 59.0 67.5 77.5 88.0 95.3	.454 .120 117 270 365 358 322 260 +.087 .041	.510 .167 110 310 464 460 400 350 078 .060	.530 .190 093 320 532 579 493 350 072 .078				104 105 106 107 108 109 110 111 112	3.0 10.0 25.0 41.0 52.5 62.5 72.5 85.1 94.6	639 425 393 364 295 190 050	.000 570 521 480 360 212 042 .112 .211	777 787 641 625 361 193 021 .135 .238			
D34 35, 36 37 38 39 40 41 42 43	2.0 15.0 27.5 40.0 50.0 59.0 67.5 77.5 87.5 94.2	.390 120 272 370 374 290 260 084 .039	.448 110 310 480 486 382 338 078 .056 .150	.565 095 311 548 630 520 321 074 .072				113 114 115 116 117 118 119 120 121	3.0 10.0 25.0 41.0 52.5 62.5 72.5 87.4 94.2	637 430 404 370 298 184 047 .110	800 578 544 500 377 210 041 .131 .191	770 730 685 668 568 152 010 .153 .220			
E 44 45 46 47 48 49 50 51 52 53 54	2.0 6.0 15.0 27.5 40.0 50.0 67.5 77.5 88.5 95.5	.438 .109 128 272 368 362 315 253 052 .098 .150	.484 .147 128 320 480 477 400 351 030 .110	.502 .172 108 329 541 611 522 438 034 .129				122 123 124 125 126 127 128 129 130 131	3.0 10.0 25.0 41.0 52.5 62.5 72.5 78.0 85.3 94.1	578 420 383 358 270 180 051 .010 .102 .281	714 542 540 474 365 193 045 .030 .132	758 620 660 621 435 260 020 .055 .155 .230			·
F55 56 57 58 59 60 61 62 63 64	2.0 6.0 15.0 27.5 49.0 50.0 59.0 67.5 86.5 94.6	.439 .110 128 367 364 306 248 .048	.490 .142 -:128 -:481 -:475 -:393 -:340 .072	.510 .167 110 543 610 520 428 .078				132 133 134 135 136 137 138 139 140	3.0 10.0 25.0 41.0 52.5 62.5 72.5 83.4 94.0	610 420 383 350 290 160 030 .079 .127	778 550 529 471 380 173 026 .100	756 632 650 640 420 141 .000 .125 .272			
G65 66 67 68 69 70 71 72 73 74 75	2.0 6.0 15.0 27.5 40.0 50.0 59.0 67.5 77.5 87.2 96.8	.450 .110 120 262 349 350 297 240 070 .048 .120	.500 .143 120 317 470 473 382 346 004 .062	.530 .170 106 321 531 590 504 453 006 .070				141 142 143 144 145 146 147 148 149	3.0 10.0 25.0 41.0 52.5 62.5 72.5 84.0 92.0	562 421 380 341 278 135 018 108 113	692 540 518 454 374 132 012 .130	,710 ,674 ,632 ,580 ,493 ,101 -,009 -,248 -,252			
H76 77 78 79 80 81 82 83 84 85	2.0 6.0 15.0 27.5 40.0 50.0 59.0 67.5 88.3 94.2	.385 .050 120 322 325 260 217 .038 .296	.436 .058 132 418 412 330 311 .048	.450 .090 130 479 482 398 400 .050				150 151 152 153 154 155 156 157	3.0 10.0 25.0 41.0 52.5 62.5 72.5 84.9	361 335 328 297 231 130 019	560 426 420 389 300 162 020 .148	590 475 500 460 344 175 010	1	NACA	حمم

TABLE 2

			UPPEF	SURPAC	E			DENTIA			LOWER	SURPAC	В		
	Per- cent			Mach N	umber			Tube	Per-			Mach N	umber		
Tube	chord	0.60	0.75	0.80	0.85	0.89	0.925	rube	chord	0.60	0.75	0.80	0.85	0.89	0.925
A 1 2 3 4 5 6 7 8 9 10 11	2.0 6.0 15.0 27.5 40.0 50.0 67.5 77.5 87.5 96.0	-0.026 190 280 331 387 360 .298 090 010 .039	0.032 171 311 398 494 459 363 000	0.088 140 300 418 591 590 416 081 .012	0.202 045 229 375 550 638 631 082	0,248 .007 178 348 501 590 630 140 .010	0.270 .043 130 312 450 534 650 .631 .402	86 87 88 89 90 91 92 93 94	3.0 10.0 25.0 41.0 52.5 62.5 72.5 84.0 94.0	-0.141 	-0.163 	-0.175 	-0.230 372 .520 452 183 070 .071 .119	-0.181 	-0.110
B12 13 14 15 16 17 18 19 20 21 22	2.0 6.0 15.0 27.5 40.0 50.0 59.0 €7.5 77.5 88.0 95.3	.030 185 310 401 450 432 370 312 110 .045	.111 157 .342 484 584 540 1470 330 103 .065	.176 110 318 494 660 702 641 213 080 .086	.280 012 240 450 599 680 549 168 .048	.328 .039 181 398 553 631 588 545 280 100	.360 .078 131 350 502 608 703 696 652 473 361	95 96 97 98 99 100 101 102 103	3.0 10.0 25.0 41.0 52.5 62.5 72.5 86.3 94.5	151 165 249 265 215 138 020 .113 .189	172 197 310 335 268 152 019 .140 .215	184 210 350 400 306 159 014 .157 .225	220 237 451 558 660 231 020 .135	160 202 420 529 658 750 571 091	085 142 353 475 585 675 660 640 330
C23 24 25 26 27 28 29 30 31 32 33	2.0 6.0 15.0 27.5 40.0 50.0 67.5 77.5 88.0 95.3	.040 179 324 420 478 440 332 332 332 20	.130 141 351 643 577 514 329 110 .050 .149	.200 081 316 509 682 737 701 367 060 .080	.304 .010 .234 441 612 640 5245 052 .070	.352 .061 171 390 558 619 593 491 308 179 072	.384 .106 122 336 501 632 734 720 704 580 402	104 105 106 107 108 109 110 111	3.0 10.0 25.0 41.0 52.5 62.5 72.5 85.1 94.6	143 192 259 281 240 159 013 .110	163 236 329 360 300 182 010 .139 .240	180 264 385 441 350 192 008 .156 .248	202 290 481 604 660 452 055 .120	145 240 430 580 691 700 650 319 038	079 175 358 511 628 705 705 654 473
D34 35 36 37 38 39 40 41 42 43	2.0 15.0 27.5 40.0 50.0 59.0 67.5 77.5 87.5 94.2	034 330 412 485 460 368 280 128 .020	.046 353 511 681 622 506 302 118 .043	.140 309 492 690 840 695 382 091 .072	.242 222 420 611 735 660 483 245 080	.290 155 368 550 682 602 520 330 202 128	.327 111 311 488 630 725 790 782 682 566	113 114 115 116 117 118 119 120	3.0 10.0 25.0 41.0 52.5 62.5 72.5 87.4 94.2	150 180 262 281 231 172 .020 .130	~.179 220 341 369 299 240 .025 .160 .213	200 250 410 451 359 290 .022 .179 .220	221 262 500 620 571 570 212 079	160 211 440 580 690 701 680 441 189	090 150 370 510 618 720 711 652 590
E 44 45 46 47 48 49 50 51 52 53	2.0 6.0 15.0 27.5 40.0 50.0 59.0 67.5 77.5 88.5 95.5	.006 206 342 430 487 455 390 340 082 .076	.080 180 376 532 680 610 540 390 082 .099 .169	.162 110 331 513 699 756 710 618 060 .113 .182	.284 007 238 432 613 620 610 532 272 097	.338 .050 175 363 547 550 542 491 291 182 113	.373 .091 125 322 490 633 681 701 669 582 500	122 123 124 125 126 127 128 129 130	3.0 10.0 25.0 41.0 52.5 62.5 72.5 78.0 85.3 94.1	195 170 248 265 207 150 020 .041 .130	110 202 320 341 362 190 010 .059 .158 .229	026 228 374 412 320 220 010 .060 .160 .230	168 255 467 602 559 091 .011 .100	119 210 418 560 661 730 703 680 483 130	050 150 350 590 591 680 709 666 640 546
F55 56 57 58 59 60 61 62 63 64	2.0 6.0 15.0 27.5 49.0 50.0 67.5 86.5 94.6	.000 210 342 487 451 380 327 .025 .088	.080 180 380 672 603 534 383 .047	168 114 332 702 741 703 628 .080 .149	.280 008 240 	.330 .048 180 550 540 535 498 203 120	.368 .090 132 492 638 690 711 641	132 133 134 135 136 137 138 139 140	3.0 10.0 25.0 41.0 52.5 62.5 72.5 83.4 94.0	120 168 242 260 218 152 .031 .110	138 200 312 333 270 211 .059 .131	~.154 225 ~.374 405 321 274 .055 .140	201 254 461 599 550 540 171 .071	-143 -207 -409 -560 -682 -724 -690 -595 -190	-080 -147 -341 -494 -618 -702 -685 -628 -570
G65 66 67 68 69 70 71 72 73 74 75	2.0 6.0 15.0 27.5 40.0 50.0 59.0 67.5 77.5 87.2 96.8	.030 197 321 408 470 440 363 332 050 .032	.110 172 358 509 632 569 502 475 040 .050	.195 110 317 500 678 693 661 647 031	.310 008 228 428 599 567 562 525 278 104 .028	.353 .043 173 370 550 500 503 466 312 208 101	.390 .085 126 320 482 630 672 680 682 541 432	141 142 143 144 145 146 147 148 149	3.0 10.0 25.0 41.0 52.5 62.5 72.5 84.0 92.0	100 187 250 261 210 149 .040 .130	101 220 320 337 261 205 .049 .155 .147	121 248 385 408 322 263 .048 .159 .147	161 282 464 668 545 518 140 .085	104 233 410 570 694 679 661 590 261	041 180 341 505 629 689 689 620 555
H76 77 78 79 80 81 82 83 84 85	2.0 6.0 15.0 27.5 40.0 50.0 59.0 67.5 88.3 94.2	.049 188 268 391 378 309 247 .030 .267	.100 191 308 500 474 401 301 .040 .216	.162 158 300 577 591 500 271 .053 .198	.258 081 247 588 593 558 550 .027 .204	.298 040 208 561 519 510 530 170 046	.332 .000 164 521 650 665 634 534	150 151 152 153 154 155 156 157	3.0 10.0 25.0 41.0 52.5 62.5 72.5 84.9	105 174 240 259 212 140 008	100 200 299 320 269 181 .001	110 221 348 378 311 212 010 .139	146 250 448 532 524 341 053 .130	102 210 420 533 621 619 528	052 160 362 515 580 600 585 265

TABLE

$\left[\Lambda = 0^{\circ}, \, \delta_{\mathbf{a}_{n}} = 0^{\circ}, \, \alpha = 2^{\circ}\right]$

							CONFI	DENTIA	L		7.0000	OHDEAC			
			UPPB	SURPA				<u> </u>		ı ——	LOWER	SURPAC			
Tube	Per- cent	0.60	0.00		*umber	1 0		Tube	Per-	<u> </u>	1	Mach N	т		-
A 1 2 3 4 5 6 7 8 9 10 11	2.0 6.0 15.0 27.5 40.0 59.0 67.5 77.5 87.5 96.0	0,60 -0.657560485452468421335111022 .030	0.80 -0.461534528648740731431097002 .050	0.85 -0.231369412583682728650130021 .040	0.89 -0.128280331419616671645182063	0.925 -0.061213250450545620721679441290		86 87 88 89 90 91 92 93	3.0 10.0 25.0 41.0 52.5 62.5 72.5 84.0 94.0	0.60 0.260 	0.80 0.227 145 240 179 110 049 .106 .130	0.85 0.155 210 390 324 180 093 .070 .109	0.89 0.162 201 409 460 572 432 052 .035	0.925 0.204 152 347 409 520 479 250	
B12 13 14 15 16 17 18 19 20 21 22	2.0 6.0 15.0 27.5 40.0 50.0 59.0 67.5 77.5 88.0 95.3	543 558 559 556 560 510 450 258 140 .030	270 477 550 740 842 775 751 301 088 .068	081 306 422 630 760 690 688 448 256 102 020	.027118342550690630628444318220150	.090 150 279 468 622 710 760 749 687 533 445		95 96 97 98 99 100 101 102 103	3.0 10.0 25.0 41.0 52.5 62.5 72.5 86.3 94.5	.248 .060 110 180 160 100 .029 .139 .207	.207 .030 185 289 250 159 .025 .150 .222	.240 019 251 440 459 313 025 .108	.153 .005 240 430 571 645 557 095	.198 .050 192 369 509 599 580 552 270	
C23 24 25 26 27 28 29 30 31 32 33	2.0 6.0 15.0 27.5 40.0 50.0 67.5 77.5 88.0 95.3	530 541 557 580 591 530 474 260 152 .009	218 406. 540 739 871 795 792 434 162 .006	019 244 406 618 752 688 661 447 319 198 094	.070 161 328 540 678 619 610 430 335 260 180	.140 092 253 464 612 722 773 773 632 522		104 105 106 107, 108 109 110 111 112	3.0 10.0 25.0 41.0 52.5 62.5 72.5 85.1 94.6	.351 .045 119 184 165 105 .017 .135 .235	.200 001 205 311 259 200 .050 .139 .247	.139 048 271 470 493 450 .008 .091	.157 021 255 449 585 660 613 371	.195 .022 210 388 519 615 622 565 360	
D34 35 36 37 38 39 40 41 42 43	2.0 15.0 27.5 40.0 50.0 59.0 67.5 77.5 87.5 94.2	611 552 577 605 555 441 305 151 .004	296 530 717 876 831 732 438 212 044	090 392 592 753 714 520 432 318 217 154	.000 315 517 675 670 619 463 360 290 240	.073 242 440 598 730 804 842 820 711 628		113 114 115 116 117 118 119 120 121	3.0 10.0 25.0 41.0 52.5 62.5 72.5 87.4 94.2	.249 .059 119 181 157 100 010 .159	.180 .000 220 329 271 209 .019 .155 .180	.115 042 290 481 525 475 103 .110	.140 011 264 445 580 680 632 541 202	.178 .030 220 390 515 623 618 561 461	
E 44 45 46 47 48 49 50 51 52 53	2.0 6.0 15.0 27.5 40.0 50.0 59.0 67.5 77.5 88.5 95.5	616 600 589 600 610 550 484 320 130 .056 .140	261 450 560 740 831 771 752 480 245 073	042 280 418 605 714 662 647 480 352 250 176	.060 180 335 520 648 590 595 456 350 280 230	.137 108 261 .447 600 708 720 700 687 610 548		122 123 124 125 126 127 128 129 130 131	3.0 10.0 25.0 41.0 52.5 62.5 72.5 78.0 85.3 94.1	.302 .070 098 162 130 090 005 .071 .159	.238 .018 191 299 240 194 053 .040 .131 .185	.165 032 269 460 483 409 060 002	.180 011 251 436 547 650 635 609 471 122	.210 .030 210 382 488 588 620 605 560 352	
F55 56 57 58 59 60 61 62 63 64	2.0 6.0 15.0 27.5 49.0 50.0 59.0 67.5 86.5 94.6	617 599 586 602 542 472 300 .005 .141	260 450 567 810 756 748 478 098	048 268 420 	.049 180 340 631 580 574 443 300 245	.120 108 268 600 712 731 751 668 580		132 133 134 135 136 137 138 139 140	3.0 10.0 25.0 41.0 52.5 62.5 72.5 83.4 94.0	.287 .074 094 154 140 075 013 .045	.216 .020 190 291 255 189 050 .119 .091	.140 030 265 450 476 421 050 .075	.157 010 250 430 572 660 610 541 201	.190 .031 210 375 522 612 592 530 480	
G65 66 67 68 69 70 71 72 73 74	2.0 6.0 15.0 27.5 40.0 50.0 59.0 67.5 77.5 87.2 96.8	550 570 550 557 572 520 450 332 094 .015	228 451 549 720 790 720 741 508 202 026	012 281 409 600 651 596 453 340 231 111	.077 190 330 521 601 562 555 446 360 293 202	.149 117 260 450 593 696 705 710 690 583 497		141 142 143 144 145 146 147 148 149	3.0 10.0 25.0 41.0 52.5 62.5 72.5 84.0 92.0	.290 .049 101 168 135 080 005 .165	.235 005 210 310 256 190 .040 .140	.161 055 284 470 485 440 010 .082 .008	.181 030 265 445 591 658 607 437 152	.218 .008 223 532 612 610 531 440	
H76 77 78 79 80 81 82 83 84 85	2.0 6.0 15.0 27.5 40.0 50.0 59.0 67.5 88.3 94.2	392 463 420 456 424 355 218 .018 .236	210 470 494 686 695 600 227 .018	032 332 413 671 661 605 016 180	.043 262 360 581 581 590 608 195	.110 195 307 596 702 698 672 568 391		150 151 152 153 154 155 156 157	3.0 10.0 25.0 41.0 52.5 62.5 72.5 84.9	.210 .004 142 198 170 110 040	.193 030 231 312 270 211 033 .105	.137 070 304 445 430 360 010 .087	.150 050 311 450 560 540 478 .025	.180 013 275 421 520 551 535 296	

TABLE 4

 $\left[\Lambda = 0^{\circ}, \, \delta_{\mathbf{a}_{\mathbf{n}}} = 0^{\circ}, \, \alpha = \mu^{\circ}\right]$

$\overline{}$			Itoper	SURPAC	·P		CONFI	DENTIA	۱۲		LONGS	SURFAC	R		
	Per-	·	UPPE	Mach N				-	Per-		DOMAIN	Mach N			
Tube	cent chord	0,60	0.75	0.80	0,85	0.89	0.925	Tube	cent	0,60	0.75	0.80		0.00	0.000
A 1 2 3 4 5 6 7 8 9 10 11	2.0 6.0 15.0 27.5 40.0 50.0 67.5 77.5 87.5 96.0	-1.655 866 684 572 5489 469 362 128 038 .012	-1.408 -1.365 -1.043 761 732 560 390 	-1.040 -1.083 896 936 908 718 382 130 036	-0.731 815 690 802 821 828 603 181 081	-0.561 658 569 698 730 770 771 280 171 110	-0.443 540 470 611 650 705 804 570 421	86 87 88 89 90 91 92 93 94	3.0 10.0 25.0 41.0 52.5 62.5 72.5 84.0 94.0	0.560 	0.568 	0.509 	0.85 0.440 	0.89 0.440 	0.925 0.451 030 170 329 441 490 370 191
B12 13 14 15 16 17 18 19 20 21 22	2.0 6.0 15.0 27.5 40.0 50.0 59.0 67.5 77.5 88.0 95.3	-1.322 -1.008 756 688 645 569 450 310 155 .010	-1.016 -1.160 -1.155 -1.122 905 605 453 290 128 .050 .140	711 891 940 -1.042 960 856 530 342 198 060	440 650 731 863 802 771 562 460 376 280 200	293 511 610 748 742 719 648 498 424 362 312	190 405 510 648 725 810 858 861 710 617	95 96 97 98 99 100 101 102 103	3.0 10.0 25.0 41.0 52.5 62.5 72.5 86.3 94.5	.544 .256 .010 098 102 056 .019 .144 .195	.545 .270 .009 120 125 069 .031 .168 .229	.480 .220 049 192 199 130 010 .130 .179	.418 .175 101 300 330 234 055 .070	.410 .180 103 329 470 530 392 .020 .069	.433 .215 065 284 430 520 495 495 130
C23 24 25 26 27 28 29 30 31 32 33	2.0 6.0 15.0 27.5 40.0 50.0 59.0 67.5 77.5 88.0 95.3	-1.287 981 800 730 690 500 328 176 003	938 +1.110 -1.075 -1.165 -1.080 995 425 253 115 .036	640 832 853 991 920 802 590 450 320 190	375 580 651 817 764 720 552 460 404 340 293	240 442 538 708 711 696 600 491 440 392 358	130 338 441 611 743 808 912 871 850 780 617	104 105 106 107 108 109 110 111	3.0 10.0 25.0 41.0 52.5 62.5 72.5 85.1 94.6	.548 .240 .010 098 100 043 .008 .148 .230	.540 .250 .000 130 131 070 009 .168 .260	.470 .196 060 210 215 145 075 .109	.409 .150 119 330 370 290 161 .049	.405 .159 111 341 489 551 495 111 .098	.430 .190 070 295 440 541 540 471 181
D34 35 36 37 38 39 40 41 42 43	2.0 15.0 27.5 40.0 50.0 59.0 67.5 77.5 87.5 94.2	-1.330 804 732 712 620 479 330 169 006	-1.020 -1.060 -1.120 -1.138 -1.068 582 312 118 .030 .110	748 832 950 940 855 591 470 332 212 150	481 - 627 770 800 747 571 475 408 350 308	340 511 668 756 723 639 536 467 412 379	-,222 -,413 -,560 -,712 -,830 -,825 -,921 -,918 -,858 -,805	113 114 115 116 117 118 119 120	3.0 10.0 25.0 41.0 52.5 62.5 72.5 87.4 94.2	.538 .250 .012 091 092 048 .007 .174 .193	.520 .251 004 131 130 070 030 .197 .220	.\$50 .198 070 225 225 155 120 .130 .120	.480 .152 130 250 403 320 170 .071	.381 .160 120 345 481 574 579 330 021	.411 .199 080 295 431 546 530 431
E 44 45 46 47 48 49 50 51 52 53	2.0 6.0 15.0 27.5 40.0 50.0 67.5 77.5 88.5 95.5	749	-1.018 -1.160 -1.140 -1.160 -1.078 -1.070 618 308 103 .032 .100	692 890 919 971 892 825 584 468 352 250 182	402 638 692 796 736 732 580 486 422 374 340	-,255 -,498 -,570 -,690 -,662 -,667 -,609 -,501 -,442 -,418	141 381 466 591 723 800 830 850 798 750 713	122 123 124 125 126 127 128 129 130 131	3.0 10.0 25.0 41.0 52.5 62.5 72.5 78.0 85.3 94.1	.580 .264 .030 073 064 051 .022 .070 .162	.580 .275 .030 100 085 055 .010 .089 .182 .236	.507 .219 048 198 189 155 100 .062 .125 .115	.438 .169 101 314 329 271 220 110 .070	.431 .175 .100 322 430 520 470 451 282	.455 205 053 280 391 501 530 485 460 280
F55 56 57 58 59 60 61 62 63 64	2.0 6.0 15.0 27.5 49.0 50.0 59.0 67.5 86.5 94.6	-1.422 -1.068 822 708 604 475 320 011	-1.020 -1.161 -1.125 -1.078 -1.060 620 278 .035 .116	716 890 910 887 812 593 472 270 182	430 630 689 740 731 602 503 389 332	283 490 570 660 662 613 510 423 399	170 373 466 726 808 840 860 782 728	132 133 134 135 136 137 138 139 140	3.0 10.0 25.0 41.0 52.5 62.5 72.5 83.4 94.0	.570 .266 .032 080 089 028 .028 .169 .140	.561 .278 .037 095 105 040 .000 .180	.490 .220 045 192 211 140 100 .100	.420 .170 103 365 279 228 .039 076	.\$18 .180 095 310 470 531 470 325 122	.439 .210 060 270 422 530 502 132 390
G65 66 67 68 69 70 71 72 73 74 75	2.0 6.0 15.0 27.5 40.0 50.0 67.5 77.5 87.2 96.8	-1.308 -1.009 790 702 678 593 453 310 130 .003	947 -1.111 -1.080 -1.100 -1.000 -1.000 482 208 055 .080	676 876 901 942 860 824 591 459 332 220 130	391 613 688 780 712 690 578 491 423 368 290	250 481 572 691 643 648 600 520 460 426 374	138 370 470 592 717 782 798 808 780 690 607	141 142 143 144 145 146 147 148	3.0 10.0 25.0 41.0 52.5 62.5 72.5 84.0 92.0	.565 .239 .018 088 080 031 .031 .200 .142	.567 .250 .005 120 110 048 .010 .215	.500 .191 062 218 210 135 089 .142 .030	.430 .142 121 340 365 280 189 .065 060	.448 .152 115 335 490 521 472 328 100	.450 .180 080 295 449 510 520 415 341
H76 77 78 79 80 81 82 83 84 85	2.0 6.0 15.0 27.5 40.0 50.0 59.0 67.5 88.3 94.2	938 772 580 478 361 217 011 .212	891 990 832 740 661 432 250 021	667 828 830 813 791 575 251 036	403 615 674 741 690 697 640 100	274 500 582 724 669 679 690 300 184	163 398 490 778 789 767 620 259	150 151 152 153 154 155 156 157	3.0 10.0 25.0 41.0 52.5 62.5 72.5 84.9	.470 .160 043 153 138 078 030	.490 .170 080 191 183 120 080 .084	.440 .131 130 360 350 180 141 .070	.380 .091 181 363 365 295 230 .039	.385 .110 181 376 502 485 419 015	.400 .135 160 349 470 505 509

TABLE 5

$\left[\Lambda = 0^{\circ}, \, \delta_{\mathbf{a}_{n}} = 0^{\circ}, \, \alpha = 7^{\circ}\right]$

CONFIDENTIAL

			UPPE	SURFAC	CE						LOWER	SURPAC	В		
	Per-			Mach !	*umber			Tube	Per-			Mach N	nwper		
Tube	cent chord	0.60	0.75	0.80	0.85	0.89	0.925	Tube	chord	0.60	0.75	0,80	0.85	0.89	0.925
A 1 2 5 6 7 8 9 10 11	2.0 6.0 15.0 27.5 40.0 59.0 67.5 77.5 87.5 96.0	-1.560 -1.561 -1.419 894 529 400 311 140 067 025	-1.803 -1.768 -1.569 -1.220 610 489 381 167 088 042	-1.487 -1.470 -1.314 -1.196 720 492 430 261 183 132	-1.231 -1.222 -1.090 -1.050 932 613 481 369 322 271	-1.040 -1.060 931 927 898 889 749 460 412 351	-0.880 917 801 811 845 912 930 846 669	86 87 88 89 90 91 92 93 94	3.0 10.0 25.0 41.0 52.5 62.5 72.5 84.0 94.0	0.800 .163 .011 .003 .004 .003 .111	0.860 .190 018 060 085 130 030 110	0.733 	0.695 .075 142 168 150 145 .000 011	 0.079 169 225 230 165 005 012	0.098 151 220 325 364 059 040
B12 13 14 15 16 17 18 19 20 21 22	2.0 6.0 15.0 27.5 40.0 50.0 67.5 77.5 88.0 95.3	-2.350 -2.248 -1.091 869 548 548 410 283 166 070 030	-1.510 -1.521 -1.450 -1.331 825 620 473 364 261 163 112	-1.159 -1.221 -1.211 -1.122 738 639 571 520 450 363 303	861 972 -1.020 -1.000 726 620 576 558 540 580	672 813 870 950 900 736 651 621 600 564 540	528 684 730 882 950 924 -1.000 -1.010 -1.015 956 912	95 96 97 .98 99 100 101 102 103	3.0 10.0 25.0 41.0 52.5 62.5 72.5 86.3 94.5	.798 .463 .160 .008 030 006 .048 .128	.842 .525 .187 028 105 109 070 030 075	.705 .400 .081 110 157 130 050 .054	.670 .373 .052 170 241 201 105 .025	.660 .378 .057 190 312 309 132 .041	.665 .390 .079 165 301 407 341 100 .089
C23 24 25 26 27 28 29 31 33	2.0 6.0 15.0 27.5 40.0 50.0 67.5 77.5 88.0 95.3	-2.440 -2.323 -1.002 880 763 638 482 318 163 040	-1.401 -1.450 -1.390 -1.280 819 670 540 435 340 245 173	-1.020 -1.150 -1.156 -1.076 760 645 572 514 470 402 300	726 917 955 927 861 671 568 562 512 420	564 770 810 890 838 759 673 620 580 580	440 630 683 802 888 916 -1.030 -1.032 -1.020 984 908	104 105 106 107 108 109 110 111	3.0 10.0 25.0 41.0 52.5 62.5 72.5 85.1 94.6	.803 .459 .169 .015 024 001 .050 .148 .217	.850 .512 .190 022 104 105 043 .005	.695 .387 .075 121 178 140 070 .055 .098	.660 .350 .049 189 270 215 153 .037 .075	.649 .350 .049 202 350 320 280 .060	.650 .368 .072 175 320 422 370 274 .139
D34 35 36 37 38 39 40 41 42 43	2.0 15.0 27.5 40.0 50.0 67.5 77.5 87.5 94.2	-2.412 -1.045 880 790 662 503 330 170 040	-1.375 -1.391 -1.295 910 686 569 458 350 251 197	-1.020 -1.150 -1.100 991 730 620 562 485 400 342	759 932 -1.014 -1.000 869 688 680 640 550 488	610 786 880 950 894 730 720 706 669 632	491 661 760 870 970 938 -1.018 -1.060 -1.018 987	113 114 115 116 117 118 119 120 121	3.0 10.0 25.0 41.0 52.5 62.5 72.5 87.4 94.2	.800 .470 .173 .020 010 .009 .069 .163 .180	.840 .520 .191 018 090 090 030 .041	.674 .379 .069 130 180 145 079 .080	.631 .351 .031 199 279 224 170 .071	.620 .350 .039 211 345 360 311 .060	.738 .369 .068 180 310 430 380 335 .020
E 44 45 46 47 48 49 50 51 52 53	2.0 6.0 15.0 27.5 40.0 50.0 67.5 77.5 88.5 95.5	-2.433 -2.362 -1.200 888 764 630 472 318 157 032	-1.426 -1.490 -1.393 -1.300 845 660 550 460 361 284 230	-1.075 -1.200 -1.178 -1.091 820 650 582 537 481 430 392	798 950 982 930 724 635 593 560 540 512	624 785 834 893 840 832 759 690 642 623 606	-,470 -,642 -,703 -,788 -,880 -,972 -,998 -1,036 -,982 -,978	122 123 124 125 126 127 128 129 130	3.0 10.0 25.0 41.0 52.5 62.5 72.5 78.0 85.3 94.1	.820 .480 .188 .040 .019 .011 .065 .090 .120	.869 .530 .210 .005 052 090 045 030 .000	.715 .385 .085 109 149 160 089 060 040	.674 .360 .057 170 221 227 150 120 052	.665 .360 .059 184 271 290 221 195 .100	.660 .370 .079 161 262 388 350 314 279 .085
P55 56 57 58 59 60 61 62 63 64	2.0 6.0 15.0 27.5 49.0 50.0 59.0 67.5 86.5 94.6	-2.344 -2.328 -1.231 756 616 462 310 048 .016	-1.484 -1.499 -1.366 810 650 550 460 311 250	-1.120 -1.195 -1.154 791 636 571 525 442 401	810 940 971 904 742 651 609 548 512	627 780 823 848 838 782 714 641 610	470 640 693 880 962 990 -1.010 973 931	132 133 134 135 136 137 138 139 140	3.0 10.0 25.0 41.0 52.5 62.5 72.5 83.4 94.0	.818 .480 .188 .043 .000 .028 .080 .160	.860 .535 .210 .010 075 075 030 .050 100	.700 .389 .085 107 175 140 075 .030 100	.660 .360 .056 165 259 209 145 .025 118	.650 .361 .059 179 329 275 230 .080 081	.649 .370 .079 150 310 410 342 282 130
G65 66 67 68 69 70 71 72 73 74	2.0 6.0 15.0 27.5 40.0 50.0 59.0 67.5 77.5 87.2 96.8	-2.235 -2.213 -1.102 827 731 602 142 300 141 039	-1.458 -1.482 -1.369 -1.301 887 680 548 440 331 234 152	-1.086 -1.180 -1.138 -1.060 822 660 581 530 471 402 320	770 930 963 890 851 694 611 580 551 510	590 769 818 857 814 793 725 672 634 580 519	438 622 680 760 860 927 940 954 924 890 811	141 142 143 144 145 146 147 148 149	3.0 10.0 25.0 41.0 52.5 62.5 72.5 84.0 92.0	.810 .450 .170 .020 .010 .030 .078 .121	.858 .505 .191 019 083 070 033 .015 090	.704 .360 .065 138 180 130 072 018 055	.664 .331 .030 205 280 220 150 015 084	.655 .338 .038 215 355 355 258 .105 060	.655 .350 .059 181 341 435 385 294 165
H76 77 78 79 80 81 82 83 84 85	2.0 6.0 15.0 27.5 40.0 50.0 59.0 67.5 88.3 94.2	-1.852 -1.710 761 600 523 392 264 068 058	-1.370 -1.401 -1.319 718 609 454 308 084 057	-1.042 -1.133 -1.132 956 795 494 374 151	773 900 946 880 875 808 684 353 206	608 745 810 850 820 820 810 531 401	450 601 690 810 880 898 873 685 406	150 151 152 153 154 155 156 157	3.0 10.0 25.0 41.0 52.5 62.5 72.5 84.9	.730 .350 .070 068 090 050 .004	.804 .420 .090 101 150 120 080 050	.645 .280 030 205 233 180 119 .000	.603 .259 061 280 340 280 280 085	.595 .262 060 291 430 405 350 151	.594 .280 039 260 403 435 445 220

TABLE 6

 $\left[\Lambda = 0^{\circ}, \, \delta_{\mathbf{a}_{\mathbf{n}}} = 0^{\circ}, \, \alpha = 10^{\circ}\right]$

			,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,			CONFID	ENTIAL	· <u>· · · · · · · · · · · · · · · · · · </u>		LORROR	SURPAC			
	P==		UPPER		umber	 		Per-		LOWER	Mach N			
Tube	Per- cent chord	0.60	0.75	0.80	14.001	 	Tube	cent	0.60	0.75				
A 1 2 3 4 5 6 7 8 9 10 11	2.0 6.0 15.0 27.5 40.0 50.0 59.0 67.5 77.5 87.5 96.0	-0.582 579 579 594 620 638 638 638 638	-0.555 553 542 550 565 581 600 572 542	-0.580 579 565 580 597 611 621 600 567			86 87 88 89 90 91 92 93 94	3.0 10.0 25.0 41.0 52.5 62.5 72.5 84.0 94.0	0.60 0.830 - 162 .003 050 052 092 092 086	0.75 0.780 	0.840 			
16 17 18 19 20 21	2.0 6.0 15.0 27.5 40.0 50.0 59.0 67.5 77.5 88.0 95.3	-1.003 736 620 620 640 650 660 665 648 588 532	542 550	- 9832 - 98327 - 5558 - 5588 - 664 - 6667			95 96 97 98 99 100 101 102 103	3.0 10.0 25.0 41.0 52.5 62.5 72.5 86.3 94.5	.833 .508 .189 .000 066 070 042 020 080	.756 .440 .130 045 075 059 .013 .115	.820 .510 .171 048 130 130 080 022 040			
C23 24 25 26 27 28 29 30 31 32 33	6.0	-1.898 -1.734 -1.292 826 660 602 550 483 455 382 280	1.640 1.567 1.346 1.660 1.660 1.560 1.560 1.560 1.560 1.560 1.560	-1.346 -1.368 -1.267 -1.128 640 578 588 546			104 105 106 107 108 109 110 111 112	3.0 10.0 25.0 41.0 52.5 62.5 72.5 85.1 94.6	.860 .518 .200 .013 051 058 012 .028	.750 .422 .130 048 090 060 .009 .110				
D34 35 36 37 38 39 40 41 42 43	2.0 15.0 27.5 40.0 50.0 59.0 67.5 77.5 87.5 94.2	-1.988 -1.462 -1.000 720 569 461 365 284 220	-1.614 -1.435 -1.159 836 681 570 488 410 338 291	-1.330 -1.272 -1.142 829 733 663 624 560 485 440			113 114 115 116 117 118 119 120 121	3.0 10.0 25.0 41.0 52.5 62.5 72.5 87.4 94.2	.865 .532 .210 .030 030 036 .012 .078	.738 .430 .129 048 090 060 .005 .130	.800 .491 .179 050 130 130 062 .009			
E 44 45 46 47 48 49 50 51 52 53	15.0	-1.800 -1.614 -1.398 -1.020 727 570 469 400 330 275 242	-1.535 -1.365 -1.160 789 730 681 564 490 433	-1.374 -1.360 -1.230 978 776 708 669 630 590 547 512			122 123 124 125 126 127 128 129 130	3.0 10.0 25.0 41.0 52.5 62.5 72.5 78.0 85.3 94.1	.880 .538 .220 .040 010 040 .000 .010	.765 .435 .140 032 061 070 010 .019 .059	.843 .505 .190 025 090 130 079 060 029			
F55 56 57 58 59 60 61 62 63 64	6.0 15.0 27.5	-1.640 -1.540 -1.362 -741 590 489 412 297 256	-1.560 -1.485 -1.302 809 717 650 589 460	-1.350 -1.231 800 728 680 640			132 133 134 135 136 137 138 139 140	3.0 10.0 25.0 41.0 52.5 62.5 72.5 83.4 94.0	.873 .535 .220 .048 020 020 .014 .071 048	.758 .449 .141 030 180 052 .009 .100	.189 020 113 109 060			•
G65 66 67 68 69 70 71 72 73 74	2.0 6.0 15.0 27.5 40.0 50.0 59.0 67.5 77.5 87.2 96.8	-1.588 -1.560 -1.352 -1.060 777 608 490 405 320 242 180	1.281 1.293 1.293 1.293 1.293 1.679 1.679 1.582 1.589 1.488	-1.327 -1.241 -1.121 870 743 692 660 634 600 547 460			141 142 143 144 145 146 147 148 149	3.0 10.0 25.0 41.0 52.5 62.5 72.5 84.0 92.0	.872 .518 .210 .032 016 .000 .028 .065 013	.760 .415 .125 050 082 033 .018 .078	.825 .480 .169 055 130 110 069 020 110			
H76 77 78 79 80 81 82 83 84 85	2.0 6.0 15.0 27.5 40.0 50.0 59.0 67.5 88.3 94.2	-1.950 -1.961 -1.121 628 546 430 315 128 023	-1.608 -1.521 -1.410 688 610 518 402 218 023	-1.337 -1.360 -1.228 851 727 641 551 350 .084			150 151 152 153 154 155 156 157	3.0 10.0 25.0 41.0 52.5 62.5 72.5 84.9	.029 .434 .119 042 081 058 017	.700 .330 .030 121 145 095 033 .050	.765 .395 .060 150 210 182 142 125	1	NACA	ممر

TARLE

 $\Lambda = 30^{\circ}, \delta_{a_n} = 0^{\circ}, \alpha = -2^{\circ}$

	•			omno.		L	CONFI	DENTIA	L		I United	SURFAC	·R	
├─			UPPE	Nach	Number				Per-		LOWER	Mach N		
Tube	Per-	0.60	۸ ۵۵	r .		1		Tube	cent			r	T	 г –
A 1 2 3 4 5 6 7 8 9 10 11	2.0 6.0 15.0 27.5 40.0 59.0 67.5 77.5 87.5 96.0	0.60 0.310 .104 028 105	0.80 0.352 .140 005 103 	0.85 0.385 .160 .015 090 	0.89			86 87 88 89 90 91 92 93	3.0 10.0 25.0 41.0 52.5 62.5 72.5 84.0 94.0	-0.395 230 	-0.364 250 	-0.410 283 	0.89	
B12 13 14 15 16 17 18 19 20 21 22	2.0 6.0 15.0 27.5 40.0 50.0 67.5 77.5 88.0 95.3	.308 .080 078 182 253 272 251 201 140 023	.348 .107 070 198 303 345 330 270 190 032	.370 .125 051 191 318 368 385 320 218 050				95 96 97 98 99 100 101 102 103	3.0 10.0 25.0 41.0 52.5 62.5 72.5 86.3 94.5	455 293 272 273 230 168 090 .009	508 340 342 365 322 235 130 011	519 372 371 444 431 300 161 029		
C23 24 25 26 27 28 29 30 31 32 33	2.0 6.0 15.0 27.5 40.0 50.0 59.0 67.5 77.5 88.0 95.3	.310 .071 100 206 280 290 262 208 100 .010	.348 .090 105 244 360 389 341 140 004	.360 .110 091 243 389 440 395 140 .000				104 105 106 107 108 109 110 111	3.0 10.0 25.0 41.0 52.5 62.5 72.5 85.1 94.6	- 484 - 342 - 392 - 293 - 243 - 169 - 062 - 049	571 413 390 393 322 211 075 .050	605 145 1435 523 405 230 081 .049		
D34 35 36 37 38 39 40 41 42 43	2.0 15.0 27.5 40.0 50.0 59.0 67.5 77.5 87.5 94.2	265 104 210 281 288 247 200 105 .030	.303 120 262 374 381 325 290 055 .030	.314 119 279 420 441 370 341 060 .048				113 114 115 116 117 118 119 120 121	3.0 10.0 25.0 41.0 52.5 62.5 72.5 87.4 94.2	495 331 310 240 150 041 .080 .128	620 429 411 303 180 049 .085 .139	694 485 500 329 183 042 .098 .141	-	
E 44 45 46 47 48 49 50 51 52 53	2.0 6.0 15.0 27.5 40.0 50.0 67.5 77.5 88.5 95.5	.354 .082 088 192 264 270 234 188 040 .160	.379 .095 102 238 338 342 295 244 033 .158	.387 .100 108 258 388 400 343 263 041 .160	.390 .100 108 268 431 518 450 218 030 .170			122 123 124 125 126 127 128 129 130 131	3.0 10.0 25.0 41.0 52.5 62.5 72.5 78.0 85.3 94.1	491 350 300 268 204 142 039 .019 .097	610 430 382 338 244 162 031 .035 .120	705 500 470 400 253 171 030 .040 .128	719 512 555 582 479 121 .020 .075 .152 .205	
F55 56 57 58 59 60 61 62 63 64	2.0 6.0 15.0 27.5 49.0 50.0 59.0 67.5 86.5 94.6	.330 .090 083 190 261 261 228 158	.358 .098 100 232 335 336 283 202	.365 .102 105 253 383 389 322 221	.362 .110 110 270 438 479 421 180			132 133 134 135 136 137 138 139 140	3.0 10.0 25.0 41.0 52.5 62.5 72.5 83.4 94.0	.517 348 298 262 210 122 019 .060	.644 441 378 332 255 134 010 .080	753 530 442 382 276 138 004 .084	725 565 575 575 407 080 .028 .185 .160	
G65 66 67 68 69 70 71 72 73 74 75	2.0 6.0 15.0 27.5 40.0 50.0 59.0 67.5 77.5 87.2 96.8	.350 .098 071 174 250 253 209 160 138 	.378 .108 082 218 318 323 260 224 088	.383 .110 091 240 360 372 304 270 002 	.380 .114 097 252 402 430 362 280 .011	, ,		141 142 143 144 145 146 147 148 149	3.0 10.0 25.0 41.0 52.5 62.5 72.5 84.0 92.0	510 361 297 260 200 084 008 .116	640 460 380 325 232 090 .005 .138	751 554 458 362 238 114 .012 .146 .148	755 652 590 533 249 048 .048 .180	
H76 77 78 79 80 81 82 83 84 85	2.0 6.0 15.0 27.5 40.0 50.0 59.0 67.5 88.3 94.2	.290 .045 097 194 250 253 200 140 .050 .089	.310 .040 131 252 320 311 247 189 .070	.319 .042 148 292 370 347 282 201 .080 .128	.329 .049, 151 330 451 390 361 100 .111			150 151 152 153 154 155 156 157	3.0 10.0 25.0 41.0 52.5 62.5 72.5 84.9	480 320 270 229 161 068 .008 .122	631 389 340 270 172 060 .160	768 500 380 281 170 050 .040 .169	839 679 560 248 099 009 .185	

TABLE 8

 $\left[\Lambda = 30^{\circ}, \ \delta_{\mathbf{a_n}} = 0^{\circ}, \ \alpha = 0^{\circ}\right]$

							CONFI		NTIA							
	,		UPPE	R SURPA				آ	<u> </u>			LOWER	SURPAC			
Tube	Per- cent		T	<u> </u>	Number		,		Tube	Per- cent	<u> </u>		Mach N	mper		
<u> </u>	chord	0.60	0.80	0,85	0.89	0.925	0.96	l	<u> </u>	chord	0,60	0.80	0.85	0.89	0.925	0.96
A 1 2 5 6 7 8 9 10 11	2.0 6.0 15.0 27.5 40.0 50.0 67.5 77.5 87.5 96.0	0.035 095 165 205 	0.110 049 141 210 	0.135 030 128 200 	0.145 018 113 190 	0.190 .030 068 144 	0.238		86 87 88 89 90 91 92 93 94	3.0 10.0 25.0 41.0 52.5 62.5 72.5 84.0 94.0	-0.072 121 	-0.081 158 	-0.070 160 	-0.055 151 	-0.021	0.028
B12 13 14 15 16 17 18 19 20 21 22	2.0 6.0 15.0 27.5 40.0 50.0 67.5 77.5 88.0 95.3	.018 130 215 281 335 335 300 240 167 056	.082 098 214 315 408 432 410 322 221 035	.110 076 201 310 422 488 508 430 270 095	.123 061 191 300 421 499 530 540 482 200	.171 013 143 250 362 440 472 490 489 340	.210 .040 076 175 362 423 429 410 342		95 96 97 98 99 100 101 102 103	3.0 10.0 25.0 41.0 52.5 62.5 72.5 86.3 94.5	100 129 175 199 170 124 051	131 160 229 270 249 181 092 .018	120 158 241 309 303 219 111	119 145 241 338 371 320 153 015	083 109 211 309 369 413 341 140	031 054 153 255 302 368 320 230
C23 24 25 26 27 28 29 30 31 32 33	2.0 6.0 15.0 27.5 40.0 50.0 59.0 67.5 77.5 88.0 95.3	.002 150 250 322 370 352 318 119 004 .080	.070121261371471470414155010 .080	.099 101 253 380 510 580 552 154 008 .185	.114 089 242 370 508 598 658 352 041	.160 038 192 313 450 539 623 559 160	.202 .010 139 254 380 470 543 520 340 030		104 105 106 107 108 109 110 111 112	3.0 10.0 25.0 41.0 52.5 62.5 72.5 85.1 94.6	105 148 185 210 180 121 024 .071 .166	150 201 259 291 255 170 049 .070	160 213 289 341 300 191 055 .071	160 218 305 421 433 245 060 .069	121 181 272 499 505 505 311 .020	058 120 221 343 421 471 403 125
D34 35, 36 37 38 39 40 41 42 43	2.0 15.0 27.5 40.0 50.0 59.0 67.5 77.5 87.5 94.2	060 264 322 370 355 301 270 068 008	.003 295 412 495 470 390 389 060 .027 .110	.019 295 422 580 590 525 478 052 .041	.038 282 415 570 647 587 560 312 018	.082 231 361 510 5615 583 572 400 233 110	.130 174 296 440 542 582 551 371 176		113 114 115 116 117 118 119 120 121	3.0 10.0 25.0 41.0 52.5 62.5 72.5 87.4 94.2	100 125 190 	161 175 268 234 160 020 .115 .160	185 210 309 269 179 019 :121 .169	205 229 351 378 150 019 .121 .160	171 197 330 537 550 151 .070	114 141 272 495 490 485 119
E 44 45 46 47 48 49 50 51 52 53	2.0 6.0 15.0 27.5 40.0 50.0 67.5 77.5 88.5 95.5	.018 152 250 310 351 332 284 240 051 .150 .128	.065 155 290 389 470 441 371 300 064 .120	.096 138 298 421 560 551 481 221 054 .160	.148 100 268 400 549 675 621 396 102 .040	.188 060 231 360 502 631 641 512 295 024	.208 029 196 321 458 580 618 530 362 161 085		122 123 124 125 126 127 128 129 130 131	3.0 10.0 25.0 41.0 52.5 62.5 72.5 78.0 85.3 94.1	100 151 187 195 150 111 034 .059 .122 .170	150 210 252 259 201 160 .018 .060 .140 .193	163 230 280 284 222 180 .029 .070 .155 .209	202 272 340 340 276 188 .010 .061 .148 .188	200 250 362 459 402 362 019 .059 .133 .160	155 212 331 145 471 445 393 290 149
F55 56 57 58 59 60 61 62 63	2.0 6.0 15.0 27.5 49.0 50.0 59.0 67.5 86.5 94.6	010 150 250 303 350 328 280 191	.030 158 298 392 470 435 370 242	.059 141 308 426 560 518 471 200	.110 100 281 411 564 651 600 462	.150 060 248 374 522 648 610 613	.171 030 212 335 484 600 623 607		132 133 134 135 136 137 138 139 140	3.0 10.0 25.0 41.0 52.5 62.5 72.5 83.4 94.0	118 142 183 191 164 092 .009 .075 .119	-,169 -,198 -,250 -,256 -,215 -,120 .009 .088 .131	180 219 271 281 234 125 .019 .099 .149	229 262 325 340 278 132 .012 .095 .145	239 260 373 465 430 204 018 .079	194 218 349 455 542 505 329 125 .045
G65 66 67 68 69 70 71 72 73 74 75	2.0 6.0 15.0 27.5 40.0 59.0 67.5 77.5 87.2 96.8	.002 151 242 290 336 320 258 222 008	.040 168 288 376 444 420 352 330 002 	.062 154 300 412 508 475 420 314 007	.110 121 281 420 560 538 505 330 054 	.160 080 250 390 500 451 430 351 198 028	.173 056 220 353 467 452 423 330 242 		141 142 143 144 145 146 147 148 149	3.0 10.0 25.0 41.0 52.5 62.5 72.5 84.0 92.0	096 159 185 189 146 100 .052 .142 .119	137 211 250 249 191 162 .070 .162 .138	142 235 275 269 209 160 .080 .180	188 278 330 322 260 205 .062 .170 .132	213 299 417 429 383 295 010 .131 .085	179 261 408 495 509 506 412 209 092
H76 77 78 79 80 81 82 83 84 85	2.0 6.0 15.0 27.5 40.0 50.0 67.5 88.3 94.2	020 176 230 280 310 293 240 171 .048	009 214 302 371 407 361 309 200 .078 .115	.012 216 330 435 452 391 358 100 .097 .140	.051 190 330 472 551 490 452 064 .114	.110 148 290 443 541 484 465 136 .027	.128 120 258 400 376 380 340 282 120 070		150 151 152 153 154 155 156 157	3.0 10.0 25.0 41.0 52.5 62.5 72.5 84.9	116 154 190 180 128 080 .050 .120	167 219 260 228 162 141 .062 .148	174 238 290 240 173 125 .060 .182	221 270 382 289 230 012 .060 .158	279 290 479 420 389 071 .065 .121	249 265 460 529 512 455 309 010

TABLE 9

$\left[\Lambda = 30^{\circ}, \, \delta_{A_{\rm B}} = 0^{\circ}, \, \alpha = 2^{\circ}\right]$

			गद्भवद्गा	SURFAC	:E		CONFI	DENTIA I	L		LOWER	SURPAC	E		
	Per-			Mach N			-		Per-			Mach N			
Тпре	cent chord	0.60	0.80	0.85	0.89	0.925	0.96	Tube	cent chord	0.60	0.80	0.85	0.89	0.925	0.96
A 1 2 3 4 5 6 7 8 9 10	2.0 6.0 15.0 27.5 40.0 50.0 67.5 77.5 87.5 96.0	-0.300 310 285 291 	-0.223 280 290 325 	-0.175 248 269 310	-0.105 204 233 280 	-0.060 155 188 232 	0 098 130 172 	86 87 88 89 90 91 92 93 94	3.0 10.0 25.0 41.0 52.5 62.5 72.5 84.0 94.0	-0.164 048 	0.179	0.179	0.179	0.195	0.229
B12 13 14 15 16 17 18 19 20 21 22	2.0 6.0 15.0 27.5 40.0 50.0 67.5 77.5 88.0 95.3	351 363 363 385 410 395 346 270 189 075	281 350 350 449 530 543 510 490 252 056	222 310 360 430 532 600 619 363 147	151 260 316 390 485 560 590 602 577 280	098 214 270 348 440 516 545 562 559 435	040 150 210 288 372 452 500 490 488 420	95 96 97 98 99 100 101 102 103	3.0 10.0 25.0 41.0 52.5 62.5 72.5 86.3 94.5	.152 .010 090 140 130 092 032 .050	.152 .009 111 179 179 129 051 .040	.149 .003 121 201 211 160 079	.139 .004 130 230 271 209 110	.150 .020 119 230 289 329 225 050	.184 .058 079 191 248 310 260 158
C23 24 25 26 27 28 29 30 31 32 33	2.0 6.0 15.0 27.5 40.0 59.0 67.5 77.5 88.0 95.3	400 400 410 429 448 414 370 140 014 .072	330 399 456 530 615 578 540 179 020	- 254 - 350 - 432 - 520 - 638 - 700 - 692 - 162 - 026 - 070	175 290 380 475 582 662 720 625 099 .031	112 239 332 430 540 612 700 	054 180 270 369 463 547 631 600 444 080	104 105 106 107 108 109 110 111	3.0 10.0 25.0 41.0 52.5 62.5 72.5 85.1 94.6	.170 .016 097 148 140 091 010 .077 .165	.150 007 130 119 182 125 020 .181 .279	.141 020 151 232 220 150 035 .081	.115 031 176 290 278 200 061 .078 .166	.125 021 171 319 390 370 149 .029 .141	.157 .018 135 272 359 409 310 021
D34 35 36 37 38 39 40 41 42 43	2.0 15.0 27.5 40.0 50.0 59.0 67.5 77.5 87.5 94.2	483 435 441 4461 425 360 249 125 005	428 518 580 655 591 512 329 110 .020	340 485 582 705 661 634 572 216 014 .072	239 425 532 650 638 612 565 390 249 131	170 378 490 603 675 620 630 510 375 284	110 318 420 532 624 651 628 621 485 370	113 114 115 116 117 118 119 120 121	3.0 10.0 25.0 41.0 52.5 62.5 72.5 87.4 94.2	.183 .038 090 128 080 .009 .120	.256 .010 130 168 108 .009 .130	.129 010 160 200 131 004 .129	.091 038 202 254 181 030 .100	.081 040 221 410 351 070 .069	.120 003 186 425 430 370 .082 .077
E 44 45 46 47 48 49 50 51 52 53	2.0 6.0 15.0 27.5 40.0 50.0 67.5 77.5 88.5 95.5	478 452 435 440 450 411 350 249 098 .128	412 481 521 570 617 552 511 236 082 .150	320 432 502 592 706 719 590 329 103 . 080	213 361 441 551 660 678 514 401 278 145 074	111 279 378 491 600 665 563 440 324 240	060 231 331 450 552 650 653 574 470 274 209	122 123 124 125 126 127 128 129 130 131	3.0 10.0 25.0 41.0 52.5 62.5 72.5 78.0 85.3 94.1	.208 .033 073 117 090 060 020 .058 .150	.181 .010 110 151 120 080 050 .120 .172 .211	.160 032 133 179 140 100 070 .115 .170 .203	.122 045 171 274 180 148 113 .075 .130	.085 072 220 335 281 240 105 .023 .089	.098 065 210 364 395 350 293 140 .045 .070
P55 56 57 58 59 60 61 62 63 64	2.0 6.0 15.0 27.5 49.0 50.0 59.0 67.5 86.5 94.6	510 460 440 450 402 348 230	458 491 540 576 610 540 497 213	371 450 528 618 730 682 682 181	258 370 468 577 690 698 684 593	147 281 393 511 624 706 668 661	090 231 350 459 580 675 662 668	132 133 134 135 136 137 138 139 140	3.0 10.0 25.0 41.0 52.5 62.5 72.5 83.4 94.0	.203 .044 070 111 102 051 .035 .092 .125	.180 .022 100 150 134 070 .045 .110	.155 002 128 178 160 089 .038 .103 .140	.110 039 170 230 220 139 002 .065 .085	.065 079 221 328 322 230 040	.068 075 220 370 453 417 181 020
G65 66 67 68 69 70 71 72 73 74 75	2.0 6.0 15.0 27.5 40.0 50.0 59.0 67.5 77.5 87.2 96.8	511 471 430 425 432 336 338 280 070	478 540 539 566 502 471 228 049	400 514 540 622 651 600 592 224 020	273 430 483 600 550 542 482 342 211 	146 324 408 531 551 542 490 411 318 	084 272 361 490 565 578 560 506 423 130	141 142 143 144 145 146 147 148 149	3.0 10.0 25.0 41.0 52.5 62.5 72.5 84.0 92.0	.226 .036 070 111 090 045 010 .174 .129	.210 .012 100 150 112 070 030 .195 .156	.192 008 126 179 139 109 029 .190 .145	.145 053 179 245 220 160 008 .152	.090 107 240 355 302 263 070 .121	.080 109 260 403 439 429 331 050
H76 77 78 79 80 81 82 83 84 85	2.0 6.0 15.0 27.5 40.0 50.0 59.0 67.5 88.3 94.2	465 451 382 380 381 349 290 171 .035	502 580 507 490 472 411 380 083 .077 .120	452 588 591 632 560 500 272 070 .093 .138	330 502 531 637 570 550 206 092 023 058	202 393 462 573 554 538 252 170 090 070	132 330 410 450 423 388 298 253 176 157	150 151 152 153 154 155 156 157	3.0 10.0 25.0 41.0 52.5 62.5 72.5 84.9	.180 .000 101 125 098 040 .038 .120	.172 020 141 161 110 062 .078 .150	.155 043 183 199 134 079 .048 .165	.103 089 255 274 195 145 .021 .092	.049 120 325 432 359 269 .018	.035 119 344 490 523 499 300 085

TABLE 10

 $[\Lambda = 30^{\circ}, \delta_{a_n} = 0^{\circ}, \alpha = 4^{\circ}]$

			lipps	R SURPA	CP		CONFI	ENT†A	<u> </u>		I Osmor	SURFAC		_	
	Per-	· · ·	UFFE		Number	_			Per-		LUWER	Mach 1			
Tube	cent	0.60	0.80			0.000	0.00	Tube			T	1		г -	т
A 1 2 3 4 5 6 7 8 9 10	2.0 6.0 15.0 27.5 40.0 50.0 67.5 77.5 87.5	-0.750 578 435 400	-0.649 550 450 458 	0.85 -0.571 510 422 420 	0.89 -0.458 430 370 360 	0.925 -0.371 367 325 310 	0.96 -0.288 292 251 258 	86 87 88 89 90 91 92 93	3.0 10.0 25.0 41.0 52.5 62.5 72.5 84.0 94.0	0.60	0.80	0.85 0.380 .050 	0.89	0.400	0.96
îĭ	96.0	==				_ ==				•					
B12 13 14 15 16 17 18 19 20 21 22	2.0 6.0 15.0 27.5 40.0 50.0 67.5 77.5 88.0 95.3	843 654 525 492 490 453 391 310 220 100	770 660 571 591 670 709 658 457 290 151	670 622 535 569 640 703 725 730 495 250	533 540 470 505 585 649 671 681 660 391	430 465 420 450 535 592 622 630 625 515	340 381 383 458 521 562 557 550 502	95 96 97 98 99 100 101 102 103	3.0 10.0 25.0 41.0 52.5 62.5 72.5 86.3 94.5	.362 .150 .005 070 080 053 .000 .070	.360 .150 005 091 110 079 015 .069	.352 .149 011 111 135 102 039 .042	.336 .140 024 138 180 148 080	.358 .150 030 163 237 227 150 037	.361 .177 .019 108 169 211 148 060
C23 24 25 26 27 28 29 30 31 32 33	2.0 6.0 15.0 27.5 40.0 50.0 67.5 77.5 88.0 95.3	930 718 582 542 533 471 403 170 035	830 760 660 700 788 802 720 180 040	690 720 610 771 760 815 825 264 096	542 612 540 610 690 770 799 731 231 100	433 526 472 542 626 710 773 727 382 200	342 438 402 480 540 605 700 680 522 140	104 105 106 107 108 109 110 111 112	3.0 10.0 25.0 41.0 52.5 62.5 72.5 85.1 94.6	.381 .160 .002 078 085 052 .011 .082 .157	.365 .150 020 110 120 079 .010 .100	.347 .137 035 140 149 103 011 .082 .169	.321 .119 060 182 204 157 055 .050	.332 .120 079 238 302 257 119 .019	.341 .150 034 181 288 292 135 .047 .119
D34 35 36 37 38 39 40 41 42 43	2.0 15.0 27.5 40.0 50.0 59.0 67.5 77.5 87.5 94.2	-1.040 610 560 547 487 391 277 150 018	939 760 790 870 821 671 252 130 -015 -090	760 700 760 829 782 730 685 270 132 040	590 610 694 760 721 660 479 369 295	460 538 627 704 743 725 703 611 489 416	370 460 547 630 707 712 701 700 587 481	· 113 114 115 116 117 118 119 120 121	3.0 10.0 25.0 41.0 52.5 62.5 72.5 87.4 94.2	.400 .185 .010 071 040 .030 .125 .138	.375 .180 011 101 050 .039 .144 .170	.348 .150 040 138 083 .010 .122 .130	.310 .119 080 200 146 040 .072 .046	.307 .102 120 311 240 090 .040	.310 .130 080 326 271 046 .090
244 45 46 47 48 49 50 51 52 53	2.0 6.0 15.0 27.5 40.0 50.0 67.5 77.5 88.5 95.5	-1.100 800 601 550 523 460 370 252 110 .050 .090	-1.011 -1.038 826 798 840 690 380 245 091 .097	787 880 778 780 802 772 631 397 208 061 011	603 731 688 712 709 688 561 430 338 257 218	460 609 582 640 690 673 610 512 413 344 303	364 520 513 572 661 700 662 489 500 430 402	122 123 124 125 126 127 128 129 130	3.0 10.0 25.0 41.0 52.5 62.5 72.5 78.0 85.3 94.1	.430 .189 .030 045 040 028 .024 .043 .140	.403 .179 .004 069 054 030 .015 .043 .195	.370 .145 019 101 089 065 021 .009 .160	.331 .114 059 155 149 129 080 055 .088	.300 .087 094 210 195 188 135 101 .061	.293 .080 100 250 249 220 172 072 .050
F55 57 58 59 60 61 62 63 64	2.0 6.0 15.0 27.5 49.0 50.0 59.0 67.5 86.5 94.6	-1.117 840 610 550 522 450 352 233	-1.053 -1.077 878 818 838 651 328 220	824*. 902 840 803 870 811 792 202	644 745 721 732 821 781 712 310	500 611 609 653 753 790 751 491	400 518 531 590 684 765 751 727	132 133 134 135 136 137 138 139 140	3.0 10.0 25.0 41.0 52.5 62.5 72.5 83.4 94.0	.430 .200 .030 040 050 020 .045 .106	.409 .188 .015 065 072 022 .065 1.122 .143	.370 .155 015 103 112 062 .030 .085	.326 .120 060 161 182 133 039 .025 010	.288 .088 095 215 258 208 079 015 069	.272 .078 109 247 299 264 103 039 115
68 69 70 71 72 73 74	2.0 6.0 15.0 27.5 40.0 50.0 59.0 67.5 77.5 87.2 96.8	-1.152 828 596 534 504 435 330 221 091 019	-1.081 -1.122 -1.002 860 719 442 324 208 058 	828 931 900 849 802 716 437 283 142	642 774 780 721 694 564 420 357 296	492 624 650 660 568 481 423 372	380 520 557 610 602 595 553 510 453 	141 142 143 144 145 146 147 148 149	3.0 10.0 25.0 41.0 .52.5 62.5 72.5 84.0 92.0	.448 .190 .030 048 045 006 .039 .190	.432 .180 .018 070 059 .010 .125 .235 .155	.390 .145 023 112 104 050 020 .210 .112	.343 .098 078 185 179 120 090 .160	.299 .059 122 265 260 196 173 .115 021	.280 .049 131 300 373 305 275 .079 069
79 80 81 82 83 84	2.0 6.0 15.0 27.5 40.0 50.0 59.0 67.5 88.3 94.2	985 740 510 460 431 371 270 156 .035 .079	-1.117 -1.110 938 586 402 394 268 138 .069 .117	870 948 928 793 658 348 192 110 .040	670 783 813 700 602 383 279 217 091 066	510 651 700 615 512 418 334 290 192 169	396 544 604 552 545 472 392 350 292 281	150 151 152 153 154 155 156 157	3.0 10.0 25.0 41.0 52.5 62.5 72.5 84.9	.390 .132 025 080 068 020 .020	.383 .123 055 116 090 029 .041 .145	.341 .081 105 171 132 069 .012 .089	.290 .038 175 268 220 151 045 008	.249 .009 220 380 370 305 085 070	.231 .003 227 405 510 460 295 203

TABLE 11

 $\left[\Lambda = 30^{\circ}, \, \delta_{\mathbf{a_n}} = 0^{\circ}, \, \alpha = 7^{\circ}\right]$

Γ	-					L	CONFIL	TIAL							
<u> </u>			UPPE	R SURPA				<u> </u>		· · · · ·	LOWER	SURPAC			
Tube	Per- cent	0.75	T		Number		T	Tube	Per-	2.5		Mach N	F		
A 1 2 3 4 5 6 7 8 9 10 11	2.0 6.0 15.0 27.5 40.0 59.0 67.5 77.5 87.5 96.0	0.60 -1.990 929 664 558 	0.80 -1.400 -1.252 725 640 	0.85 -1.150 -1.049 649 570 	0.89 -0.965 905 560 520 	0.925 -0.835 608 503 458 	0.96 -0.720 670 441 398 	86 87 88 89 90 91 92 93 94	3.0 10.0 25.0 41.0 52.5 62.5 72.5 84.0 94.0	0.60	0,80 0,585 	0.85 0.568 	0.89	0.925	0.96
B12 13 14 15 16 17 18 19 20 21 22	2.0 6.0 15.0 27.5 40.0 50.0 59.0 67.5 77.5 88.0 95.3	-1.942 -1.146 762 650 602 539 453 360 251 151	-1.450 -1.345 -1.090 775 830 875 850 531 331 170	-1,182 -1,155 -1,010 -,720 -,783 -,823 -,860 -,850 -,618 -,380	-1.000 -1.001 891 675 719 760 801 785 780 545	860 880 772 610 652 691 740 724 723 632	731 768 655 527 580 609 648 651 638 599	95 96 97 98 99 100 101 102 103	3.0 10.0 25.0 41.0 52.5 62.5 72.5 86.3 94.5	.565 .320 .130 .025 005 010 041 101	.556 .319 .128 .010 .021 .010	.530 .300 .108 011 052 042 .000 .065	.523 .294 .100 028 090 072 030 .032	-	.553 .338 .140 .006 053 062 029 .048
C23 24 25 26 27 28 29 30 31 32 33	2.0 6.0 15.0 27.5 40.0 50.0 59.0 67.5 77.5 88.0 95.3	-2.092 -1.331 838 702 636 560 441 185 070 017	-1.460 -1.410 -1.270 869 950 993 628 215 097 025	-1.179 -1.180 -1.090 -1.002 865 935 -1.020 	984 -1.020 970 900 770 863 939 645 390 280	830 890 864 802 725 785 860 855 477 312	692 773 560 700 668 704 767 772 431 267	104 105 106 107 108 109 110 111 112	3.0 10.0 25.0 41.0 52.5 62.5 72.5 85.1 94.6	.582 .330 .130 .018 010 .007 .050 .100	.545 .315 .110 010 041 021 .040 .100	.522 .290 .088 041 078 061 .003 .065	.510 .278 .070 070 113 099 032 .030		.528 .306 .097 060 123 110 031 .063 .089
D34 35, 36 37 38 39 40 41 42 43	2.0 15.0 27.5 40.0 50.0 59.0 67.5 77.5 87.5 94.2	-1.927 930 708 629 530 434 292 156 047 .006	-1.489 -1.355 -1.280 -1.189 960 380 220 125 060 033	-1.200 -1.150 -1.140 -1.088 -1.062 560 321 269 261 252	998 -1.010 -1.030 970 960 870 691 429 355 350	836 890 924 923 868 900 852 559 400	700 778 811 844 827 828 850 820 697 413	113 114 115 116 117 118 119 120 121	3.0 10.0 25.0 41.0 52.5 62.5 72.5 87.4 94.2	.595 .355 .139 .000 .015 .065 .130	.558 .329 .110 040 013 .050 .125	.518 .291 .078 089 069 002 .072 .031	.493 .272 .050 094 072 017 .048		.498 .288 .060
E 44 45 46 47 48 49 50 51 52 53 54	6.0	-1.830 -1.639 -1.000 678 582 487 371 260 130	-1.520 -1.452 -1.355 -1.258 998 651 469 300 135 .055	-1.250 -1.221 -1.160 -1.088 960 681 583 504 410 250 168	-1.023 -1.040 -1.002 949 882 660 562 510 461 399 370	865 900 890 904 870 838 744 653 590 520 481	720 772 782 822 868 896 882 850 821 691 531	122 123 124 125 126 127 128 129 130 131	3.0 10.0 25.0 41.0 52.5 62.5 72.5 78.0 85.3 94.1	.610 .350 .150 .040 .023 .017 .060 .080 .135	.569 .330 .125 .015 002 009 .050 .092 .151 .179	.540 .290 .095 025 048 059 001 .040 .101	.510 .260 .060 069 100 123 063 029 .039	0.485 .238 .040 100 130 164 099 060 .030	.465 .225 .029 119 136 185 115 075 .040
F55 56 57 58 59 60 61 62 63 64	6.0	-1.754 -1.638 -1.052 686 570 470 368 240	-1.534 -1.468 -1.340 -1.262 912 664 410 244 	-1.262 -1.228 -1.163 -1.088 993 802 480 360	-1.030 -1.047 -1.011 -1.011 958 878 520 395	858 900 898 919 891 878 817 640	704 771 782 828 878 910 918 910	132 133 134 135 136 137 138 139 140	3.0 10.0 25.0 41.0 52.5 62.5 72.5 83.4 94.0	.614 .363 .150 .048 .017 .024 .070 .101	.569 .330 .125 .013 019 .003 .069 .089	.538 .300 .090 030 069 051 .015 .021 031	.500 .265 .053 081 135 115 045 030	.475 .240 .030 118 180 159 070 050 138	.449 .221 .018 130 215 189 069 052 134
G65 66 67 68 69 70 71 72 73 74 75	2.0 6.0 15.0 27.5 40.0 50.0 59.0 67.5 77.5 87.2 96.8	-1.595 -1.482 -1.071 690 530 420 311 212 120 038	-1.543 -1.423 -1.324 997 664 518 412 324 212 	-1.278 -1.226 -1.114983700588501420320118	-1.039 -1.060 963 908 710 582 523 490 438 	852 904 880 814 761 640 570 541 508 	673 769 782 814 832 845 841 830 798 	141 142 143 144 145 146 147 148 149	3.0 10.0 25.0 41.0 52.5 62.5 72.5 84.0 92.0	.610 .344 .142 .030 .008 .028 .059 .169 .082	.570 .309 .109 019 041 .013 .021 .151 .041	.539 .275 .070 065 095 060 029 .120 015	.500 .235 .024 125 161 123 081 .081 063	.468 .205 005 175 223 189 135 .039 099	.438 .180 028 203 265 241 179 .025 099
H76 77 78 79 80 81 82 83 84 85	2.0 6.0 15.0 27.5 40.0 50.0 59.0 67.5 88.3 94.2	-1.460 -1.260 802 550 429 335 242 158 030 008	910 846 728 601 510 438 372 319 218 188	900 852 706 554 490 438 390 338 266 245	870 859 711 523 452 413 384 353 312 301	850 848 782 665 520 460 430 402 380 370	685 768 801 762 798 778 760 724 703 670	150 151 152 153 154 155 156 157	3.0 10.9 25.0 41.0 52.5 62.5 72.5 84.9	.544 .266 .060 028 038 004 .014	.498 .220 .003 105 119 080 060 093	.470 .190 041 160 169 121 089 140	.430 .150 099 245 257 199 143 195	.403 .129 129 309 380 303 209 259	.375 .110 141 328 430 399 301 270

TABLE 12

 $\left[\Lambda = 30^{\circ}, \, \delta_{\mathbf{a}_{\mathbf{n}}} = 0^{\circ}, \, \alpha = 10^{\circ}\right]$

			UPPER	SURPA	CE		CONFIDE	NTIA	ւ		LOWER	SURPAC	E		
	Per-				Number	•			Per-			Mach N	umber		,
Tube	cent chord	0.60	0.80					Tube	chord	0.60	0.80				
A 1 2 3 4 5 6 7 8 9 10 11	2.0 6.0 15.0 27.5 40.0 59.0 67.5 77.5 87.5 96.0	-1.902	-1.675 -1.590 -1.040 845 					86 87 88 89 90 91 92 93	3.0 10.0 25.0 41.0 52.5 62.5 72.5 84.0 94.0	0.690 .260 	0.702 .260 				
B12 13 14 15 16 17 18 19 20 21 22		-1.454 -1.421 -1.428 981 630 524 411 300 190	-1.670 -1.615 -1.562 -1.095 966 980 701 450 183					95 96 97 98 99 100 101 102 103	3.0 10.0 25.0 41.0 52.5 62.5 72.5 86.3 94.5	.663 .420 .213 .090 .048 .040 .070	.660 .427 .219 .087 .038 .033 .067 .112				
C23 24 25 26 27 28 29 30 31 32 33	6.0 15.0	-1.119 -1.110 -1.060	-1.670 -1.622 -1.500 -1.400 -1.000 748 510 260 145 090					104 105 106 107 108 109 110 111 112	3.0 10.0 25.0 41.0 52.5 62.5 72.5 85.1 94.6	.650 .411 .200 .065 .020 .055 .090 .140	.652 .420 .200 .060 .010 .099 .050 .098				
D34 35 36 37 38 39 40 41 42 43	2.0 15.0 27.5 40.0 50.0 67.5 77.5 87.5 94.2	964 948 880 780 700 624 560 476 380 318	-1.490 -1.230 998 845 615 560 490 410 755					113 114 115 116 117 118 119 120 121	3.0 10.0 25.0 41.0 52.5 62.5 72.5 87.4 94.2	.631 .409 .180 002 009 .021 .050	.643 .420 .184 				-
E 44 45 46 47 48 49 50 51 52 53 54	2.0 6.0 15.0 27.5 40.0 50.0 59.0 67.5 77.5 88.5 95.5	771 754 754 642 589 544 504 460 405 380	838 821 823 805 766 718 668 608 541 470 439					122 123 124 125 126 127 128 129 130 131	3.0 10.0 25.0 41.0 52.5 62.5 72.5 78.0 85.3 94.1	.636 .392 .174 .040 010 046 028 022 .003	.650 .405 .183 .040 013 059 031 021 .009 043				
F55 56 57 58 59 60 61 62 63 64	2.0 6.0 15.0 27.5 49.0 50.0 59.0 67.5 86.5 94.6	691 680 665 628 570 522 492 470	960 921 852 702 614 578 523 517 					132 133 134 135 136 137 138 139 140	3.0 10.0 25.0 41.0 52.5 62.5 72.5 83.4 94.0	.623 .387 .160 .022 034 051 029 040 149	.640 .401 .170 .020 049 064 032 058 165				
G65 66 67 68 69 70 71 72 73 74 75	2.0 6.0 15.0 27.5 40.0 50.0 59.0 67.5 77.5 87.2 96.8	626 600 568 530 485 450 428 411 396 	756 720 678 621 559 512 498 473 451 					141 142 143 144 145 146 147 148 149	3.0 10.0 25.0 41.0 52.5 62.5 72.5 84.0 92.0	.596 .340 .125 018 061 045 051 .031 104	.617 .355 .130 035 091 079 079 .019 125	-			
H76 77 78 79 80 81 82 83 84 85	2.0 6.0 15.0 27.5 40.0 50.0 59.0 67.5 88.3 94.2	596 560 510 461 420 388 361 332 298 281	537 523 483 450 444 430 416 400 353 339				,	150 151 152 153 154 155 156 157	3.0 10.0 25.0 41.0 52.5 62.5 72.5 84.9	.520 .255 040 070 110 082 085 167	.520 .248 .003 131 169 143 135 235	6	NACA	مس	

TABLE 13

$$\left[\Lambda = 45^{\circ}, \ \delta_{\mathbf{a_n}} = 0^{\circ}, \ \alpha = -2^{\circ}\right]$$

			गचववा	SURPAC			CONFIDE	NTIA			LOWER	SURFAC	E		
-	Per-		ULIBI	Mach 1	-		1		Per-	Γ		Mach N			
Tube	cent chord	0.60	0.80	0,89	0.925	0.96	\Box	Tube	cent chord	0,60	0.80	0.89		0.06	
A 1 2 3 4 5 6 7 8 9 10	2.0 6.0 15.0 27.5 40.0 50.0 59.0 67.5 77.5 87.5 96.0	0.230 .089 .000 025	0.80 0.251 .115 .021 005 	0.259 .120 .030 .000	0.925 0.270 .135 .045 .015	0.96 0.275 .135 .045 .019		86 87 88 89 90 91 92 93 94	3.0 10.0 25.0 41.0 52.5 62.5 72.5 84.0 94.0	-0.301 105 156 	-0,300 105 167 	-0.271 080 158 	0.925 -0.241 064 142 	0.96 -0.195 038 108 	
B12 13 14 15 16 17 18 19 20 21 22	2.0 6.0 15.0 27.5 40.0 50.0 59.0 67.5 77.5 88.0 95.3	 031 105 150 160 148	 021 100 153 171 151		 015 090 161 199 170 	 018 090 160 200 071 		95 96 97 98 99 100 101 102 103	3.0 10.0 25.0 41.0 52.5 62.5 72.5 86.3 94.5	360 239 202 202 188 	400 258 232 240 233 	368209241266289	340 156 241 258 294 	290 139 205 233 270 	
C23 24 25 26 27 28 29 30 31 33	2.0 6.0 15.0 27.5 40.0 50.0 59.0 67.5 77.5 88.0 95.3	.228 .060 055 130 179 150 189 105 025 .084	.240 .070 051 139 200 201 220 169 123 041	.235 .066 067 151 226 226 213 153 060	.239 .069 061 155 240 295 310 269 212 102 039	.221 .069 071 161 245 310 322 304 282 200 131		104 105 106 107 108 109 110 111 112	3.0 10.0 25.0 41.0 52.5 62.5 72.5 85.1 94.6	401 261 225 215 191 145 086 010	554 269 269 265 240 183 114 029	- 448 - 306 - 305 - 333 - 300 - 230 - 146 - 046	425 299 307 365 384 347 336 085 009	371 270 281 338 368 364 315 182 080	
D34 35 36 37 38 39 40 41 42 43	2.0 15.0 27.5 40.0 50.0 59.0 67.5 77.5 87.5 94.2	.197 060 130 181 190 090 124 073 003	.205 062 149 210 215 151 142 087 009	.196 090 181 252 261 209 171 102 019	.185 109 205 305 305 270 180 110 014 .060	.160121221336393405340202070003		113 114 115 116 117 118 119 120 121	3.0 10.0 25.0 41.0 52.5 62.5 72.5 87.4 94.2	408 249 225 211 176 122 047 .051	-,502 -,285 -,273 -,256 -,214 -,146 -,063 -,054	542 301 313 302 245 161 071 .036	528330365433339173067 .039	473 327 433 459 381 166 008	
E 44 45 46 47 48 49 50 51 52 53	2.0 6.0 15.0 27.5 40.0 50.0 59.0 67.5 77.5 88.5 95.5	.245 .058 058 128 175 180 162 128 070 .135	.250 .054 072 150 205 210 130 054 .123 .078	.250 .050 087 168 233 238 208 150 064 .111	.242 .040 102 188 248 216 160 063 .110	.230 .028 121 222 320 338 274 163 053 .120 .080		122 123 124 125 126 127 128 129 130 131	3.0 10.0 25.0 41.0 52.5 62.5 72.5 78.0 85.3 94.1	355 248 203 181 135 105 033 .007 .061	419 288 242 216 162 163 001 056	487 303 273 241 184 144 052 005 .053	525 355 337 242 167 144 051 002 .054	502 360 397 420 275 142 041 .008 .061	
F55 56 57 58 59 60 61 62 63 64	2.0 6.9 15.0 27.5 49.0 50.0 59.0 67.5 86.5 94.6	.228 .065 052 120 170 165 145 112	.235 .064 068 140 200 198 172 121	.228 .060 080 162 230 227 190 132	.242 .060 084 170 240 241 197 140	.210 .030 122 213 289 280 213 137		132 133 134 135 136 137 138 139 140	3.0 10.0 25.0 41.0 52.5 62.5 72.5 83.4 94.0	370 244 199 181 146 086 020 .074	435 285 238 214 173 102 029	496 307 255 244 194 115 035	542 324 270 251 202 120 038 	544 397 401 336 205 091 015 081	
G65 66 67 68 69 70 71 72 73 74	2.0 6.0 15.0 27.5 40.0 50.0 67.5 77.5 87.2 96.8	.250 .080 032 100 150 154 125 085 075	.260 .080 042 120 172 180 150 117 042	.265 .080 050 130 191 202 170 125 028	.269 .080 053 140 202 212 180 120 030	.258 .074 068 150 210 212 174 110 028		141 142 143 144 145 146 147 148 149	3.0 10.0 25.0 41.0 52.5 62.5 72.5 84.0 92.0	387 258 192 168 126 057 006 .080	473 303 231 198 146 056 006	510 311 254 218 158 090 005 .090	536 308 316 231 154 060 .000	584 347 323 253 146 049 .015	,
H76 77 78 79 80 81 82 83 84 85	2.0 6.0 15.0 27.5 40.0 50.0 67.5 88.3 94.2	.155 .010 070 122 160 158 112 082 .068 .085	.158 .000 094 153 192 181 133 110 .080	.160 010 112 180 222 202 155 140 .096 .114	.167 010 121 197 248 217 170 145 .110	.173 006 116 203 252 238 190 148 .130		150 151 152 153 154 155 156 157	3.0 10.0 25.0 41.0 52.5 62.5 72.5 84.9	341 215 183 102 032 .018 .097	437 254 212 104 027 .030 .116	496 239 235 099 014 .045 .131	533 258 273 086 .000 .058 .148	568 294 273 061 .024 .079 .168	

TABLE 14

 $\left[\Lambda = 45^{\circ}, \, \delta_{\mathbf{a}_{\mathbf{n}}} = 0^{\circ}, \, \alpha = 2^{\circ}\right]$

			UPPER	SURPAC	E		- CONFID I	ENTIA 	L —		LOWER	SURPAC	B		
	Per-			Mach 1					Per-			Mach N	umber		
Tube	cent chord	0.60	0.80	0.89	0.925	0.96		Tube	cent chord	0.60	0,80	0.89	0.925	0.96	
A 1 2 3 4 5 6 7 8 9 10 11	2.0 6.0 15.0 27.5 40.0 50.0 59.0 67.5 77.5 87.5 96.0	-0.180 190 183 169 	-0.130 170 170 162 	-0.103 141 150 145 	-0.068 111 125 120 	0,105 ,060 ,400 ,484 		86 87 88 89 90 91 92 93	3.0 10.0 25.0 41.0 52.5 62.5 72.5 84.0 94.0	0.089	0.106 .021 015 	0.117 .031 009 	0.123 .040 .000 	0.144 .058 .022 	
B12 13 14 15 16 17 18 19 20 21 22	2.0 6.0 15.0 27.5 40.0 50.0 67.5 77.5 88.0 95.3		 238 262 295 300 275 		200 230 280 304 301	 .009 03 ¹ 4 061 109 135 		95 96 97 98 99 100 101 102 103	3.0 10.0 25.0 41.0 52.5 62.5 72.5 86.3 94.5	.083 023 072 106 106	.089 019 071 113 117 	.090 019 076 126 138 	.091 014 076 130 150	.109 .007 057 114 144 	
C23 24 25 26 27 28 29 30 31 32 33	2.0 6.0 15.0 27.5 40.0 59.0 67.5 88.0 95.3	280 275 280 291 310 290 270 231 150 063	250 271 298 327 360 341 322 278 190 081	210251299345403410425371285120029	164 220 265 320 385 411 450 414 390 220 080	.010 051 100 150 219 251 289 258 250 152 050		104 105 106 107 108 109 110 111	3.0 10.0 25.0 41.0 52.5 62.5 72.5 85.1 94.6	.89 886 118 118 090 647 .883	.083 024 094 132 134 101 055 .011	.070 040 114 159 162 126 075 003 .043	.059 049 126 182 190 153 100 024 .015	.068 036 118 192 213 195 141 058 021	,
D34 35 36 37 38 39 40 41 42 43	2.0 15.0 27.5 40.0 50.0 59.0 67.5 77.5 87.5 94.2	347 301 301 320 320 300 235 191 103 021 .040	341 337 350 371 350 285 290 100 020	311 365 410 481 439 379 371 080 004	250 341 390 490 535 433 451 345 005	071 173 223 325 380 359 341 320 015		113 114 115 116 117 118 119 120 121	3.0 10.0 25.0 41.0 52.5 62.5 72.5 87.4 94.2	.106 .003 079 115 108 075 015 .017	.098 002 089 128 121 082 .006 .070	.071 - 024 - 114 - 154 - 143 - 096 .003 .071 .083	.041 045 139 181 166 112 006 .129 .083	.028 050 154 225 214 164 025 .058 .063	
E 44 45 46 47 48 49 50 51 52 53	2.0 6.0 15.0 27.5 40.0 50.0 57.5 77.5 88.5 95.5	382 340 310 302 308 280 242 194 068 .110	408 378 360 360 368 338 293 210 088 .100	410 400 418 440 440 341 188 081 .100	350 363 402 463 557 540 503 281 102 .050	270 308 350 420 520 580 573 513 210 050		122 123 124 125 126 127 128 129 130 131	3.0 10.0 25.0 41.0 52.5 62.5 72.5 78.0 85.3 94.1	.165 .031 040 069 052 046 .004 .051	.151 .013 060 089 069 061 .009 .042 .093 .117	.132 007 078 107 083 075 .004 .036 .093 .118	.105 031 098 120 091 082 .000 .035 .095	.078 053 125 147 104 098 020 .021 .083	
F55 56 57 58 59 60 61 62 63 64	2.0 6.0 15.0 27.5 49.0 50.0 59.0 67.5 86.5 94.6	408 342 310 298 302 268 225 150	432 383 363 358 366 328 270 168	452 420 420 420 428 380 285 178	408 410 440 498 557 516 368 191	-,311 -,340 -,390 -,452 -,550 -,603 -,543 -,404 -,-		132 133 134 135 136 137 138 139 140	3.0 10.0 25.0 41.0 52.5 62.5 72.5 83.4 94.0	.167 .043 033 065 062 029 .020	.165 .027 050 084 079 045 .020 088	.141 .012 065 100 094 056 .019 	.115 010 079 113 103 066 .017 	.076 041 101 137 126 082 .007 	
G65 66 67 68 69 70 71 72 73 74	2.0 6.0 15.0 27.5 40.0 50.0 67.5 77.5 87.2 96.8	\\\\20 351 300 282 283 255 21\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	\\$53 \\$01 350 331 330 295 256 153 058 	495 452 400 382 373 340 295 151 050 	503 500 462 444 405 361 210 126 041 	404 442 443 498 513 489 389 123 060 		141 142 143 144 145 146 147 148 149	3.0 10.0 25.0 41.0 52.5 62.5 72.5 84.0 92.0	.183 .038 028 060 049 019 .010 .120	.186 .027 043 074 058 029 .032 .120	.186 .018 053 085 066 037 .036 .131	.176 .007 062 091 068 039 .042 .134	.139 026 091 109 080 049 .054 .146	
H76 77 78 79 80 81 82 83 84 85	2.0 6.0 15.0 27.5 40.0 50.0 59.0 67.5 88.3 94.2	402 320 266 -:251 250 224 188 130 .058	483 387 320 301 291 258 228 093 .072 .104	552 481 392 348 325 290 230 036 .100 .128	562 523 438 400 360 327 171 013 .120 .145	537 548 490 409 376 254 093 006 .104 .122		150 151 152 153 154 155 156 157	3.0 10.0 25.0 41.0 52.5 62.5 72.5 84.9	.149 .001 068 053 016 .000	.151 011 089 	.152 020 106 066 032 .071 .129	.159 020 120 066 038 .089 .148	.155 022 139 080 057 .095 .136	
	<u> </u>	L	I	L		IFIDENT	I		·		NACA	– محرمه	<u> </u>		

TABLE 15

$[\Lambda = 45^{\circ}, \delta_{a_n} = 0^{\circ}, \alpha = 7^{\circ}]$

CONFIDENTIAL

			UPPE	R SURPA	CE					LOWER	SURPAC	E		
Tube	Per-			Mach	Number	,	Tube	Per- cent			Mach N	umber		
	chord	0,60	0.80	0.89	0.925	0.96	1000	chord	0.60	0.80	0.89	0,925	0.96	
A 1 2 3 4 5 6 7 8 9 10 11	2.0 6.0 15.0 27.5 40.0 50.0 67.5 77.5 87.5 96.0	-1.155 -1.623 440 355 	-1.189602430371	-1.000 540 400 331 	-1.150 899 525 430 	-0.761 472 310 256 	86 87 88 89 90 91 92 93 94	3.0 10.0 25.0 41.0 52.5 62.5 72.5 84.0 94.0	0,408 .170 .156 	0.410 .181 .163	0,412 .185 .167 	0.416 .192 .175 	0.428 .203 .189 	
B12 13 14 15 16 17 18 19 20 21 22	2.0 6.0 15.0 27.5 40.0 59.5 67.5 88.0 95.3		539 490 488 437 	 495 465 482 478 	 741 535 528 541 532 	 402 383 390 410 403 	95 96 97 98 99 100 101 102 103	3.0 10.0 25.0 41.0 52.5 62.5 72.5 86.3 94.5	.403 .225 .116 .044 .023	.393 .217 .110 .039 .017	.385 .210 .106 .033 .008 	.387 .213 .107 .033 .003	.394 .222 .117 .043 .009	
C23 24 25 26 27 28 29 30 31 32 33	2.0 6.0 15.0 27.5 40.0 50.0 67.5 77.5 88.0 95.3	-1.392 -1.120 592 495 455 418 355 270 210 120 052	-1.421 -1.148 -1.595 -1.595 -1.599 -1.459 -1.459	-1.161 -1.100 569 572 602 592 641 592 510 302 125	-1.309 -1.215 -1.102 714 660 661 680 640 650 552 329	950 890 450 471 515 528 551 513 515 422 252	104 105 106 107 108 109 110 111 112	3.0 10.0 25.0 41.0 52.5 62.5 72.5 85.1 94.6	.408 .238 .103 .031 .007 .010 .031 .068	.390 .221 .092 .016 009 004 .021 .065	.376 .206 .077 001 028 024 .001 .040	.367 .200 .071 012 044 041 019 .017	.368 .202 .073 013 047 043 023 .013	
D34 35 36 37 38 39 40 41 42 43	2.0 15.0 27.5 40.0 50.0 67.5 77.5 87.5 94.2	-1.300 799 442 391 330 230 140 055 020	-1.490 772 638 545 330 260 165 060 000	-1.254 821 670 740 781 623 389 221 135 100	-1.339 -1.182 -1.077 760 809 798 749 455 292 240	-1.009811565632675681675430259203	113 114 115 116 117 118 119 120 121	3.0 10.0 25.0 41.0 52.5 62.5 72.5 87.4 94.2	.417 .256 .113 .034 .010 .013 .043 .081	.399 .240 .097 .019 008 001 .034 .080	.374 .217 .074 006 034 023 .014 .060	.358 .201 .056 030 064 052 019	.350 .196 .050 039 074 062 028 .017 033	
E 44 45 46 47 48 49 50 51 52 53	2.0 6.0 15.0 27.5 40.0 50.0 67.5 77.5 68.5 95.5	-1.141 -1.128 -1.003 572 398 340 273 194 102 .025	-1.275 -1.210 -1.103 639 450 380 300 216 120 008	-1.325 -1.274 -1.150 878 773 673 310 228 180 118 080	-1.200 -1.166 -1.051 899 725 802 646 334 270 220 167	-1.072 -1.051 943 861 658 742 780 603 348 287 247	122 123 124 125 126 127 128 129 130 131	3.0 10.0 25.0 41.0 52.5 62.5 72.5 78.0 85.3 94.1	.438 .267 .132 .057 .041 .021 .048 .064 .096	.426 .256 .119 .044 .027 .005 .034 .052 .087	.396 .224 .092 .003 .003 .009 .028 .005 .057	.385 .209 .078 .000 020 051 017 .002 .040	.368 .193 .060 022 047 092 061 039 004 022	,
F55 56 57 58 59 60 61 62 63 64	2.0 6.0 15.0 27.5 49.0 50.0 59.0 67.5 86.5 94.6	-1.120 -1.110 959 620 435 332 250 170	-1.350 -1.340 -1.154 562 488 382 268 162		-1.242 -1.183 -1.084 -1.000 847 621 311	-1.103 -1.052 975 911 850 743 730 390	132 133 134 135 136 137 138 139 140	3.0 10.0 25.0 41.0 52.5 62.5 72.5 83.4 94.0	.439 .276 .135 .057 .030 .033 .056	.430 .265 .125 .049 .015 .019 .044	.397 .232 .098 .022 013 007 .020	.382 .214 .079 001 035 030 .001	.357 .188 .051 035 074 072 043 	
G65 66 67 68 69 70 71 72 73 74 75	2.0 6.0 15.0 27.5 40.0 50.0 59.0 67.5 77.5 87.2 96.8	900 892 860 695 464 330 232 164 105 	932 921 900 731 600 491 331 195 100 	-1.343 -1.260 -1.200 812 534 472 192 152 130	-1.242 -1.158 -1.094 907 573 560 336 240 245 	-1.098 -1.034 962 824 671 575 534 496 360 180	141 142 143 144 145 146 147 148 149	3.0 10.0 25.0 41.0 52.5 62.5 72.5 84.0 92.0	.438 .261 .128 .047 .024 .030 .050 .099	.435 .256 .121 .038 .020 .027 .044 .104	.409 .228 .100 .017 .003 .031 .030 .100	.392 .207 .078 004 019 005 .006	.353 .161 .027 063 079 039 053 .025	,
80 81	2.0 6.0 15.0 27.5 40.0 50.0 59.0 67.5 88.3 94.2	570 554 5535 490 420 350 264 200 090 060	498 490 470 431 422 380 340 198 152	490 485 490 463 451 447 431 243 243 161	430 425 421 387 382 380 379 365 281 237	430 428 418 392 388 365 348 328 300 290	150 151 152 153 154 155 156 157	3.0 10.0 25.0 41.0 52.5 62.5 72.5 84.9	.310 .156 .028 029 009 .007 006	.311 .149 .015 	.316 .151 .006 060 037 019 051	.311 .139 014 085 061 051 117	.285 .106 055 149 105 094 211	

TABLE 16

 $\begin{bmatrix} \Lambda = 45^{\circ}, \ \delta_{\mathbf{a}_{\mathbf{n}}} = 0^{\circ}, \ \alpha = 10^{\circ} \end{bmatrix}$ **CONFIDENTIAL**

							CONFID	ENTIAL			I OWDD	SURPAC	P		
			UPPE	Mach !				\vdash	Per-		LOWER	Mach N			
Tube	Per- cent chord	0.60	0.80		0.925	0.96		Tube	cent	0.60	0.80			0.66	
A 1 2 3 4 5 6 7 8 9 10	2.0 6.0 15.0 27.5 40.0 59.0 67.5 77.5 87.5 96.0	-1.701 -1.740 560 485	-1.482 -1.330 609 515 	-1.271 960 561 460	0.925	-1.041 829 475 380		86 87 88 89 90 91 92 93	3.0 10.0 25.0 41.0 52.5 62.5 72.5 84.0 94.0	0.507 .256 .252 	0.80 0.551 .263 .257 	0.89 0.519 .268 .262 	0.925 0.527 .291 .270	0.96 0.535 .282 .280 	-
B12 13 14 15 16 17 18 19 20 21	2.0 6.0 15.0 27.5 40.0 50.0 59.0 67.5 77.5 88.0 95.3	-1,410 -,453 -,480 -,450 -,395 	-1.175 566 603 605 550			661 480 476 485 490 		95 96 97 98 99 100 101 102 103	3.0 10.0 25.0 41.0 52.5 62.5 72.5 86.3 94.5	.483 .327 .203 .120 .089 	.477 .317 .199 .115 .083	.477 .311 .196 .112 .084	.482 .314 .198 .112 .072	.485 .318 .205 .117 .076	
223 24 25 26 27 28 29 30 31 32 33	6.0 15.0	-1.285 -1.300 -1.380 -1.000 379 420 385 292 220 141 060	-1.315 -1.331 -1.302 -1.102 641 570 473 355 270 169	-1.374 -1.339 -1.012 831 695 680 720 660 1440 233		-1.182 -1.103 -1.031 -622 -595 -591 -629 -580 -591 -519 -302		104 105 106 107 108 109 110 111 112	3.0 10.0 25.0 41.0 52.5 62.5 72.5 85.1 94.6	.477 .331 .192 .099 .066 .059 .054 .109	.468 .315 .182 .089 .053 .047 .064 .094	.459 .302 .169 .073 .037 .030 .046 .074	.457 .298 .164 .066 .026 .032 .032 .063	.455 .295 .162 .066 .024 .018 .032 .065	
D34 35 36 37 38 39 40 41 42 43	2.0 15.0 27.5 40.0 50.0 59.0 67.5 77.5 87.5 94.2	995 -1.011 -1.095 940 530 279 215 152 062	-1.180 -1.205 -1.180 940 721 375 254 160 060	-1.479 -1.329 940 867 859 711 500 300 170 112		-1.200 -1.065 990 702 738 733 740 551 341 290		113 114 115 116 117 118 119 120 121	3.0 10.0 25.0 41.0 52.5 62.5 72.5 87.4 94.2	.474 .338 .186 .096 .057 .053 .073 .104	.465 .328 .177 .082 .044 .041 .062 .097	.147 .305 .155 .060 .018 .014 .037 .066	.439 .293 .140 .041 007 014 .003 .030 033	.429 .283 .132 .032 016 021 003 .019 052	
E 44 45 46 47 48 49 50 51 52 53	2.0 6.0 15.0 27.5 40.0 50.0 67.5 77.5 88.5 95.5	840 825 830 850 902 910 825 621 263 .070	830 800 808 800 797 794 783 728 535 180 090	-1.065 940 943 912 853 802 750 663 505 310 222	-1.188 942 938 903 861 790 710 621 499 351 297	-1.232 -1.204 -1.128 -1.082 -1.046 997 844 741 391 281 283		122 123 124 125 126 127 128 129 130	3.0 10.0 25.0 41.0 52.5 62.5 72.5 78.0 85.3 94.1	.487 .348 .202 .117 .090 .060 .080 .091 .123 .126	.474 .327 .184 .094 .063 .027 .042 .051 .077	.460 .309 .166 .073 .037 006 .006 .015 .037	.149 .292 .149 .057 .020 026 013 005 .017 020	.428 .263 .123 .031 008 063 047 036 039	
F55 56 57 58 59 60 61 62 63 64	2.0 6.0 15.0 27.5 49.0 50.0 59.0 67.5 86.5 94.6	693 680	632 630 640 645 650 642 632 622	790 795 780 768 740 708 678 630	878 890 864 814 782 760 731 607	-1.224 -1.179 -1.110 -1.041 980 887 808 711		132 133 134 135 136 137 138 139 140	3.0 10.0 25.0 41.0 52.5 62.5 72.5 83.4 94.0	.479 .338 .190 .097 .054 .043 .050	.467 .321 .173 .078 .025 .005 .006	.456 .309 .161 .064 .007 009 004 	4290 - 143 - 143 - 143 - 143	.413 .257 .112 .013 040 052 037 123	
G65 66 67 68 69 70 71 72 73 74 75	2.0 6.0 15.0 27.5 40.0 50.0 59.0 67.5 77.5 87.2 96.8	374 369 372 378 390 404 410 415 420	352 342 350 358 370 384 395 402 412 338	362 360 370 380 402 430 450 462 470 	430 427 432 445 467 480 483 483 357	750 751 718 687 652 625 603 590 571 		141 142 143 144 145 146 147 148 149	3.0 10.0 25.0 41.0 52.5 62.5 72.5 84.0 92.0	.448 .285 .139 .033 013 017 042 036	.437 .270 .122 .010 034 042 068 051	.441 .271 .123 .008 036 035 074 048	.429 .256 .108 007 051 058 087 057	.394 .216 .072 031 068 069 101 066	
H76 77 78 79 80 81 82 83 84 85	2.0 6.0 15.0 27.5 40.0 50.0 67.5 88.3 94.2	209 200 201 209 219 224 228 230 231 232	238 235 240 252 258 260 263 258 258	284 284 288 283 300 301 303 308 300 300	320 321 320 310 323 330 331 320 320	429 430 424 403 419 413 410 402 400 398		150 151 152 153 154 155 156 157	3.0 10.0 25.0 41.0 52.5 62.5 72.5 84.9	.302 .156 .021 078 072 076 171	.291 .138 010 112 107 108 202	.297 .140 021 140 134 147 244	.298 .139 031 	.286 .128 046 213 161 175 347	

TABLE 17

 $\left[\Lambda = -30^{\circ}, \ \delta_{\mathbf{a}_{\mathbf{n}}} = 0^{\circ}, \ \alpha = -2^{\circ}\right]$

			UPPE	R SURPA	CE		- CONFI	DENTIA	L —		LOWER	SURFAC	:E		
	Per-			Mach	Number				Per-			Mach N	umber		
Tube	cent chord	0.60	0.80	0.85	0.89	,		Tube	chord	0.60	0.80	0.85	0.89	Γ	T
A 1 2 3 4 5 6 7 8 9 10 11	2.0 6.0 15.0 27.5 40.0 59.0 67.5 77.5 87.5 96.0	 	 -0.220 180 087	 -0.240 181 090	 -0.220 141 075			86 87 88 89 90 91 92 93 94	3.0 10.0 25.0 41.0 52.5 62.5 72.5 84.0 94.0	 -0.122 081 030	 -0.104 061 005	 -0.095 052 .000	 -0.055 015 -031	5	
B12 13 14 15 16 17 18 19 20 21 22	2.0 6.0 15.0 27.5 40.0 50.0 67.5 77.5 88.0 95.3	.420 .108 101 202 252 250 210 143 070 .037	.445 .120 136 270 325 310 251 160 072 .046	.435 .120 162 330 391 361 282 171 060 .040	.430 .128 154 370 500 461 391 112 041 .059			95 96 97 98 99 100 101 102 103	3.0 10.0 25.0 41.0 52.5 62.5 72.5 86.3 94.5	961 431 308 259 192 130 041 .046	711 711 390 281 198 118 022 .069	1.020 -1.000 740 230 180 105 020 .072 .128	920 983 912 688 144 018 .034 .109		
C23 24 25 26 27 28 29 30 31 32 33	2.0 6.0 15.0 27.5 40.0 50.0 67.5 77.5 88.0 95.3	.398 .125 068 185 252 230 222 165 076	.450 .160 061 222 320 292 271 215 078 .040	.440 .170 061 241 376 382 318 260 081 .032	.430 .186 050 244 412 472 416 331 079			104 105 106 107 108 109 110 111 112	3.0 10.0 25.0 41.0 52.5 62.5 72.5 85.1 94.6	618 392 322 262 230 160 054 .030	711 580 450 330 263 171 050 045 109	831 705 559 490 274 163 043 .040	719 709 625 594 580 255 024 .075 .126		
D34 35, 36 37 38 39 40 41 42 43	2.0 15.0 27.5 40.0 50.0 59.0 67.5 77.5 87.5 94.2	.340 068 170 244 252 180 118 .010	.389 058 196 302 310 228 070 .005	.396 054 210 343 354 310 060 008 .059	.414 047 211 369 402 352 091 020			113 114 115 116 117 118 119 120 121	3.0 10.0 25.0 41.0 52.5 62.5 72.5 87.4 94.2	560 359 312 281 226 150 060 .049	711 478 415 362 282 176 070 .050	793 600 490 448 335 217 090 .019	690 633 587 579 383 233 119 .012		
E 44 45 46 47 48 49 50 51 52 53	2.0 6.0 15.0 27.5 40.0 50.0 67.5 77.5 88.5 95.5	.350 .090 086 188 250 250 218 170 123 .129 .078	.398 .120 090 224 313 311 268 225 115 .129	.420 .152 080 230 340 340 255 082 .129 062				122 123 124 125 126 127 128 129 130 131	3.0 10.0 25.0 41.0 52.5 62.5 72.5 78.0 85.3 94.1	450 319 293 261 204 144 060 018 .040	551 399 381 340 261 170 080 029 .031 .080	625 435 449 390 301 181 099 039 .028			
	2.0 6.9 15.0 27.5 49.0 50.0 59.0 67.5 86.5 94.6	.350 .090 080 180 245 240 208 167 .020	.400 .120 085 215 310 308 260 220 .010	.423 .140 071 224 331 331 281 242 .008 .038				132 133 134 135 136 137 138 139 140	3.0 10.0 25.0 41.0 52.5 62.5 72.5 83.4 94.0	461 311 280 252 210 141 040 .040	565 389 360 329 270 160 052 .037	628 430 420 385 319 164 069 .029			•
365 66 67 68 69 70 71 72 73 74 75	2.0 6.0 15.0 27.5 40.0 50.0 59.0 67.5 77.5 87.2 96.8	.358 .098 068 170 240 236 196 150 122 .050	.408 .125 070 203 300 301 245 209 180 .045	.430 .150 059 210 320 329 264 230 184 .040				141 142 143 144 145 146 147 148 149	3.0 10.0 25.0 41.0 52.5 62.5 72.5 84.0 92.0	411 309 272 240 191 111 048 .038 .056	482 380 350 309 251 150 069 .031	518 420 400 350 289 155 080 .025 .050			
79 80 81 82 83 84	2.0 6.0 15.0 27.5 40.0 50.0 59.0 67.5 88.3 94.2	.297 .070 063 169 222 240 190 140 006		.370 .120 048 195 290 320 264 185 040	·		. ,	150 151 152 153 154 155 156 157	3.0 10.0 25.0 41.0 52.5 62.5 72.5 84.9	484 217 218 230 194 113 030	618 250 260 300 253 159 052 .042	660 260 283 350 298 181 062 .040			
					CON	NFIDEN	TIAL			Jana J	VACA,	⊥ حرر	L		

TABLE 18

 $\begin{bmatrix} \Lambda = -30^{\circ}, \ \delta_{\mathbf{a_n}} = 0^{\circ}, \ \alpha = 0^{\circ} \end{bmatrix}$

							_ CONFI	DENTIA	·L		· LOBTOD	OTTERAC			
	Per-		OPPE	Mach !	umber			\vdash	Per-	I	LOWER	Mach N		_	
Tube	cent	0.60	0,80	0.85	0.89	0.925	0.96	Tube	cent	0.60	0.80	0.85	0.89	0.925	0.06
A 1 2 3 4 5 6 7 8 9 10 11	2.0 6.0 15.0 27.5 40.0 50.0 59.0 67.5 77.5 87.5 96.0	 -0.211 178 112		 0.230 179 100		 -0.582 301 148 		86 87 88 89 90 91 92 93 94	3.0 10.0 25.0 41.0 52.5 62.5 72.5 84.0 94.0	 -0.100 067 019	 -0.120 062 013	 -0.119 055 002	 -0.118 052 .005		0.96 -0.449 175 031
B12 13 14 15 16 17 18 19 20 21 22	2.0 6.0 15.0 27.5 40.0 50.0 67.5 77.5 88.0 95.3	128 251 291 320 322 293 231 163 080 .028	090 300 411 421 410 360 262 174 078 .032	048 288 480 560 507 383 230 160 070 .042	.035 221 438 570 688 626 490 090 023	.098 161 388 531 661 724 702 1436 141	.150 102 331 478 600 703 751 714 382 122	95 96 97 98 99 100 101 102 103	3.0 10.0 25.0 41.0 52.5 62.5 72.5 86.3 94.5	180 170 200 200 166 102 020 .059 .118	280 250 271 250 200 118 020 .070	309 299 315 269 210 105 011 .080 .139	340 417 432 341 135 095 007 .089	313 431 482 528 450 058 .048 .118	- 488 - 480 - 570 - 550 - 550 - 550 - 550 - 655 - 685
C23 24 25 26 27 28 29 31 32 33	2.0 6.0 15.0 27.5 40.0 50.0 59.0 67.5 77.5 88.0 95.3	010 161 261 316 340 300 264 212 090	.060 151 302 410 448 390 348 222 097 .022	.093 130 302 451 571 476 132 090 .035	.148 081 266 431 587 630 610 335 040	.200 034 221 391 549 630 211 017	.248 .017 170 342 496 630 725 641 318 142	104 105 106 107 108 109 110 111	3.0 10.0 25.0 41.0 52.5 62.5 72.5 85.1 94.6	120 160 200 192 180 030 .000 .048 .120	156 220 270 258 230 171 022 .049	159 239 308 290 250 190 013 .060 .125	173 272 358 392 330 200 008 .062	152 255 364 448 460 409 052 .060 .112	129 220 355 140 550 508 209 091 029
D34 35 36 37 38 39 40 41 42 43	2.0 15.0 27.5 40.0 50.0 59.0 67.5 77.5 87.5 94.2	007 245 295 330 320 240 065 002	.053 271 365 433 408 327 088 014	.088 272 391 500 472 378 102 013 .058	.133 250 390 554 558 452 139 034	.179 211 360 516 630 560 171 067	.220 165 311 459 588 551 348 075 .017	113 114 115 116 117 118 119 120 121	3.0 10.0 25.0 41.0 52.5 62.5 72.5 87.4 94.2	118 132 192 202 173 119 030 .060 .087	161 180 260 271 230 160 050 .048 .083	163 189 285 304 251 171 050 061	182 210 325 370 310 119 070 .039	175 195 340 432 375 271 100 .020	159 172 339 451 474 361 087 .000
E44 45 46 47 48 49 50 51 52 53	2.0 6.0 15.0 27.5 40.0 50.0 57.5 77.5 88.5 95.5	039 181 270 314 347 320 270 229 061 .100	.020 170 304 385 438 400 340 315 067 .100	.055 150 310 412 496 450 460 362 085 .099	.078 140 312 440 568 550 500 117 .072	.150 075 255 390 527 604 548 510 099 042	.203 021 200 337 471 572 511 500 291 010	122 123 124 125 126 127 128 129 130 131	3.0 10.0 25.0 41.0 52.5 62.5 72.5 78.0 85.3 94.1	020 089 155 171 130 093 040 .029 .075 .110	038 120 210 230 179 135 041 .011 .069	031 130 235 255 200 155 041 .008 .068	045 140 261 290 221 187 045 .000 .059	041 132 280 335 258 224 040 010 .052 .087	- 033 - 118 - 282 - 393 - 324 - 039 - 011 - 049 - 070
F55 56 57 58 59 60 61 62 63 64	2.0 6.0 15.0 27.5 49.0 50.0 59.0 67.5 86.5 94.6	040 190 277 332 355 310 260 228 009	.025 263 289 370 425 385 331 315 010	.065 145 291 400 475 430 365 018	.080 138 427 550 475 428 040	.152 073 241 379 513 563 520 509 022 .032	.210 012 187 324 461 558 500 496 090	132 133 134 135 136 137 138 139 140	3.0 10.0 25.0 41.0 52.5 62.5 72.5 83.4 94.0	040 089 150 161 140 090 022 .078 .083	060 120 203 221 182 140 011 .069	069 130 225 250 205 161 005 .069	063 131 247 281 232 191 010 .064	060 127 264 313 260 221 011 .063 .058	050 104 279 370 320 280 .058 047
G65 66 67 68 69 70 71 72 73 74 75	2.0 6.0 15.0 27.5 40.0 50.0 59.0 67.5 77.5 87.2 96.8	006 165 250 300 342 298 242 210 029 .021	.060 140 255 340 400 364 308 291 007 .020	.099 118 252 360 440 400 349 338 011 .015	.110 112 262 389 505 468 424 415 043 010	1054 - 10	.230 .000 160 290 421 542 481 471 204 072	141 142 143 144 145 146 147 148 149	3.0 10.0 25.0 41.0 52.5 62.5 72.5 84.0 92.0	020 098 151 160 135 080 018 .070	033 130 202 219 180 121 040 .057 .068	032 141 229 240 202 141 048 .050	028 145 250 270 225 159 060 .040	010 132 263 310 249 169 059 .045	009 113 250 362 301 287 007 .075
H76 77 78 79 80 81 82 83 84 85	2.0 6.0 15.0 27.5 40.0 50.0 59.0 67.5 88.3 94.2	001 140 195 265 300 275 218 152 013	.055 128 210 298 340 331 260 175 325	.090 105 201 308 361 371 285 200 040	.100 103 210 330 430 340 235 063	.160 048 160 295 380 405 370 255 050	.228 .010 110 254 345 410 370 280 054	150 151 152 153 154 155 156 157	3.0 10.0 25.0 41.0 52.5 62.5 72.5 84.9	035 070 120 171 155 080 011 .060	050 090 152 232 213 130 040	050 088 160 261 242 150 043 .036	040 081 162 300 292 173 009	014 054 146 283 360 235 060 .030	031 050 144 268 351 308 096

TABLE 19

$\Lambda = -30^{\circ}$, $\delta_{a_n} = 0^{\circ}$, $\alpha = 2^{\circ}$

			UPPE	R SURPAG			- CONF	IDENTIA I I	VL		LOWER	SURFAC	Е .		
	Per-			Mach :	·				Per-			Mach N			
Tube	cent	0.60	0.80	0.85	0.89	0.925	0.96	Tube	cent chord	0.60	0.80	0.85	0.89	0.925	0.96
A 1 2 3 4 5 6 7 8 9 10 11	2.0 6.0 15.0 27.5 40.0 50.0 59.0 67.5 77.5 87.5 96.0	 -0.240 200 130	 -0.240 184 111	 -0.181 141 079	 -0.250 162 090	 -0.491 327 230	 -0.772 583 420	86 87 88 89 90 91 92 93 94	3.0 10.0 25.0 41.0 52.5 62.5 72.5 84.0 94.0		 -0.093 044 - 005	 -0.103 045 .003	 -0.119 049 .003	 -0.135 050 004	 -0.429 179 075
B12 13 14 15 16 17 18 19 20 21 22	2.0 6.0 15.0 27.5 40.0 50.0 59.0 67.5 77.5 88.0 95.3	-1.080 748 508 435 350 272 190 098 .010	911 962 -1.020 762 352 355 270 180 080	728 830 950 950 842 441 160 102 030 054	547 680 807 911 828 711 500 304 161	368 521 680 795 815 794 731 502 318 082	265 431 588 712 770 804 810 751 456 320	95 96 97 98 99 100 101 102 103	3.0 10.0 25.0 41.0 52.5 62.5 72.5 86.3 94.5	.310 .079 080 131 119 071 .000 .068 .120	0.280 .051 128 175 149 080 .004 .082	.250 .031 155 200 165 092 .002 .090	.208 003 205 250 199 105 003 .089	.149 041 259 389 330 133 005 .075	-138 041 250 429 459 384 161 030
C23 24 25 26 27 28 29 30 31 32 33	2.0 6.0 15.0 27.5 40.0 50.0 59.0 67.5 77.5 88.0 95.3	620 530 490 461 441 380 342 190 113 .004	584 620 678 639 551 250 106 .013	421 521 587 711 790 670 651 171 074 .030	296 427 509 660 768 792 794 671 091	161 311 420 574 691 778 840 764 241 138	074 238 352 511 623 712 830 740 460 226	104 105 106 107 108 109 110 111	3.0 10.0 25.0 41.0 52.5 62.5 72.5 85.1 94.6	.270 .069 066 113 120 080 030 .070 .128	.270 .062 090 150 158 108 .000 .070	.255 .053 115 180 178 119 079 .079	.233 .033 143 225 218 158 070 .070	.202 .009 175 285 315 249 145 .030	.195 .010 172 310 368 299 183 092 055
D34 35 36 37 38 39 40 41 42 43	2.0 15.0 27.5 40.0 50.0 59.0 67.5 77.5 87.5 94.2	548 450 438 432 400 315 	489 550 578 598 531 452 139 023	391 540 622 718 651 509 155 038	289 479 598 711 731 622 178 063 .020	168 400 528 650 700 628 470 105 .027	080 338 469 591 691 610 556 275	113 114 115 116 117 118 119 120 121	3.0 10.0 25.0 41.0 52.5 62.5 72.5 87.4 94.2	.238 .071 064 120 111 073 002 .079	.238 .070 090 158 145 100 010 .085	.225 .061 109 180 170 123 024 .075 .095	.205 .050 129 219 203 150 045 .062	.175 .030 158 265 250 200 085 .043 .062	.169 .032 160 295 276 221 095 .031
E 44 45 46 47 48 49 50 51 52 53	2.0 6.0 15.0 27.5 40.0 50.0 67.5 77.5 88.5 95.5	564 502 460 441 390 340 228 119 .070	,560 ,590 ,600 ,590 ,525 ,489 ,221 ,139 -,070	443 540 582 657 700 630 603 218 140 069 040	317 442 513 624 705 690 664 475 123 .050	210 360 450 571 673 652 626 618 266 049	100 270 371 500 608 573 553 540 348 193 170	122 123 124 125 126 127 128 129 130 131	3.0 10.0 25.0 41.0 52.5 62.5 72.5 78.0 85.3 94.1	.288 .093 048 100 080 058 020 .013 .091	.315 .110 059 128 100 074 040 .011 .090	.300 .100 071 149 120 090 055 .000 .082	.380 .086 092 174 140 110 079 002 .071	.275 .175 110 203 169 131 108 021 .050	.255 .078 122 238 200 165 148 082 .000
F55 56 57 58 59 60 61 62 63 64	2.0 6.0 15.0 27.5 49.0 50.0 59.0 67.5 86.5 94.6	550 489 445 430 429 335 233 025	540 576 560 570 561 500 470 223 031	426 530 550 622 653 570 265 040	304 440 490 595 690 639 606 483 049	201 360 430 550 652 610 590 553 175 040	098 266 351 480 590 550 542 516 290 170	132 133 134 135 136 137 138 139 140	3.0 10.0 25.0 41.0 52.5 62.5 72.5 83.4 94.0	.272 .091 044 093 091 050 018 .094 .082	.299 .108 054 121 111 069 043 .099 .079	.286 .100 070 141 120 082 061 .096	.277 .089 089 167 152 101 088 .091	.253 .080 110 195 178 121 119 .090	.240 .079 111 226 204 143 130 .070 018
G65 66 67 68 69 70 71 72 73 74 75	2.0 6.0 15.0 27.5 40.0 50.0 59.0 67.5 77.5 87.2 96.8	480 445 405 409 360 305 250 071 .000	455 510 491 509 514 452 420 330 073 002	364 485 504 560 595 514 488 423 070 010	255 404 442 528 619 570 552 513 056 005	169 238 392 490 605 628 590 588 095 010	071 250 320 425 541 613 548 550 392	141 142 143 144 145 146 147 148 149	3.0 10.0 25.0 41.0 52.5 62.5 72.5 84.0 92.0	.270 .072 050 100 090 050 005 .096	.300 .086 061 130 115 079 011 .075	.291 .079 080 150 139 090 023 .068	.280 .071 098 171 155 110 031 .060	.276 .067 090 190 175 121 040 .059	.270 .068 121 231 193 144 064 .087
H76 77 78 79 80 81 82 83 84 85	2.0 6.0 15.0 27.5 40.0 50.0 59.0 67.5 88.3 94.2	379 380 335 347 340 315 245 160 032 .010	352 420 379 418 421 390 200 053	289 393 385 436 448 444 331 224 065	210 340 352 442 467 450 370 245 083	043 290 313 420 485 495 404 289 093	051 220 253 365 451 490 430 309 081	150 151 152 153 154 155 156 157	3.0 10.0 25.0 41.0 52.5 62.5 72.5 84.9	.242 .060 041 128 123 067 007	.271 .079 050 162 170 104 025	.271 .080 051 185 199 124 036	.268 .080 056 210 233 150 045 .009	282 177	.241 .103 051 207 302 273 047 .008
L			 CO	NFIDEN	TIAL				_	John W.	ACA_	المساسم	L		,1

TABLE 20

 $\Lambda = -30^{\circ}, \delta_{a_n} = 0^{\circ}, \alpha = 4^{\circ}$

						L.	CONF									
L.		·	UPPE	SURPAG	E				<u></u>			LOWER	SURPAC	B		
Tube	Per-			Mach !	*umber				Tube	Per- cent	•		Mach N	umber		
	chord	0.60	0.80	0.85	0.89	0.925	0.96	ŀ		chord	0.60	0.80	0.85	0.89	0.925	0.96
A 1 2 5 6 7 8 9 10 11	2.0 6.0 15.0 27.5 40.0 50.0 59.0 67.5 77.5 87.5 96.0	 -0.230 200 134	 -0.430 321 220	 -0.545 500 432	 -0.541 534 500	 -0.404 378 346	 -0.614 498 430		86 87 88 89 90 91 92 93 94	3.0 10.0 25.0 41.0 52.5 62.5 72.5 84.0 94.0	 -0.040 029 .009	 -0.079 043 002	 -0.120 073 040	 -0.158 100 071	 -0.194 095 062	 -0.371 245 099
B12 13 14 15 16 17 18 19 20 21 22	2.0 6.0 15.0 27.5 40.0 50.0 67.5 77.5 88.0 95.3	-1.616 -1.190 848 571 451 378 290 200 100 .009	-1.268 -1.202 764 578 611 512 382 270 158 030	-1.171 -1.020 610 550 493 485 430 338 235 132	962 662 545 543 469 421 353 268 205	761 867 921 940 889 760 611 544 450 313	632 749 821 860 881 853 820 734 585 478		95 96 97 98 99 100 101 102 103	3.0 10.0 25.0 41.0 52.5 62.5 72.5 86.3 94.5	.590 .264 .024 069 072 040 .020 .070	.553 .245 011 109 111 065 .005 .075 .125	.519 .215 043 149 149 095 021 .041	.489 .193 075 191 189 121 041 .020	- 452 - 170 - 109 - 261 - 269 - 184 - 064 - 015	.442 .170 111 281 348 305 165 100 025
C23 24 25 26 27 28 29 30 31 32 33	2.0 6.0 15.0 27.5 40.0 50.0 59.0 67.5 77.5 88.0 95.3	-1.405947701600521423348230130011	-1.042 -1.118 -1.071 952 493 445 388 256 144 017	800 925 928 932 866 591 438 211 097 020	620 770 799 861 814 711 630 517 187 060	470 638 680 753 845 850 881 815 321 230	370 533 580 662 753 802 859 781 525 290		104 105 106 107 108 109 110 111 112	3.0 10.0 25.0 41.0 52.5 62.5 72.5 85.1 94.6	.539 .258 .050 040 064 040 .011 .070	.520 .250 .035 073 100 063 009 .091	.499 .239 .019 099 128 085 034 .081	.479 .221 .000 130 165 119 068 .065 .119	.451 .203 021 171 225 178 125 .015	.450 .210 019 179 255 221 165 039 ,025
D34 35 36 37 38 39 40 41 42 43	2.0 15.0 27.5 40.0 50.0 67.5 77.5 87.5 94.2	-1.170 643 560 520 448 333 135 031	960 971 840 740 529 440 143 029	757 862 887 934 877 555 134 016	598 745 800 898 904 766 221 063 .031	561 631 701 812 840 780 560 271	370 540 620 730 800 718 617 430 045		113 114 115 116 117 118 119 120 121	3.0 10.0 25.0 41.0 52.5 62.5 72.5 87.4 94.2	.491 .248 .050 040 051 030 .014 .071	.482 .250 .040 065 079 050 005 .130	.460 .238 .029 085 100 070 001 .100	.449 .229 .011 109 130 099 020 .080	.420 .215 008 139 169 139 059 .045	.415 .205 005 147 175 159 071 .030
E 44 45 46 47 48 49 50 51 52 53	2.0 6.0 15.0 27.5 40.0 50.0 67.5 77.5 88.5 95.5	-1.303 988 644 570 520 440 356 259 139 .000	-1.068 -1.135 -1.050 895 678 530 415 290 147 .020	865 970 950 970 980 850 642 300 133 180	674 805 810 858 920 824 751 559 235 671 080	532 678 695 760 823 750 694 591 382 180 206	395 557 580 660 668 642 633 550 404 352 340		122 123 124 125 126 127 128 129 130	3.0 10.0 25.0 41.0 52.5 62.5 72.5 78.0 85.3 94.1	.512 .255 .060 028 030 022 .010 .035 .065	.530 .272 .061 041 040 030 .010 .030 .069 .125	.523 .275 .060 050 049 040 .000 .027 .073	.504 .861 .043 070 062 025 .000 .042	.524 .269 .028 108 105 070 045 010	.477 .250 .038 110 108 110 091 071 043 002
F55 56 57 58 59 60 61 62 63 64	2.0 6.0 15.0 27.5 49.0 50.0 59.0 67.5 86.5 94.6	-1.202 900 620 552 510 437 349 248 044	-1.050 -1.100 992 830 688 522 408 297 050	860 945 930 944 884 880 570 325 050	680 790 800 840 808 803 629 575 170 035	542 664 690 748 715 745 592 563 427 230	402 532 576 643 660 634 609 568 453 345		132 133 134 135 136 137 138 139 140	3.0 10.0 25.0 41.0 52.5 62.5 72.5 83.4 94.0	.501 .250 .060 025 040 015 .029 .083	.519 .270 .070 039 055 022 .020 .120	.518 .278 .060 042 066 029 .016 .130	.498 .269 .049 083 034 003 .129 .056	.518 .260 .034 091 119 071 030 .130	.469 .251 .037 092 112 064 031 .098 028
G65 66 67 68 69 70 71 72 73 74 75	2.0 6.0 15.0 27.5 40.0 50.0 67.5 77.5 87.2 96.8	-1.082 794 580 503 494 418 317 230 105 022	970 -1.040 828 705 650 549 380 273 126 041	779 909 876 790 770 712 628 260 122 045 .020	631 761 763 771 720 715 643 110 041	522 642 660 694 721 711 693 703 277 042	368 512 542 590 635 682 650 652 512		141 142 143 144 145 146 147 148 149	3.0 10.0 25.0 41.0 52.5 62.5 72.5 84.0 92.0	.490 .229 .050 032 040 015 .020 .060	.518 .250 .253 049 060 031 .005 .090	.520 .258 .051 052 070 031 002 .093	.502 .250 .041 070 085 040 010 .100	.530 .259 .031 098 124 062 020 .087	.484 .240 .029 095 109 066 023 .122 .090
H76 77 78 79 80 81 82 83 84 85	2.0 6.0 15.0 27.5 40.0 59.0 67.5 88.3 94.2	850 653 488 440 400 358 272 186 059	860 809 609 550 515 460 350 242 100	738 797 630 603 558 533 409 280 124	590 680 592 580 590 550 459 310 140	472 575 538 524 578 580 468 343 148	332 451 451 455 530 550 475 352 126		150 151 152 153 154 155 156 157	3.0 10.0 25.0 41.0 52.5 62.5 72.5 84.9	.500 .198 .040 070 085 039 .008 .026	.525 .221 .050 091 121 081 010	.539 .240 .059 100 141 091 022 004	.527 .240 .059 110 168 109 030 009	.558 .259 .062 132 220 145 048 018	.465 .268 .060 122 217 153 009 005

TABLE 21

 $\left[\Lambda = -30^{\circ}, \ \delta_{\mathbf{a}_{\mathbf{n}}} = 0^{\circ}, \ \alpha = 7^{\circ}\right]$

			UPPE	R SURPA	CE		– CONF	IDE	ENTIA	AL		LOWER	SURFAC	:E		
	Per-	[3		Number			1	<u> </u>	Per-	Γ		Mach N			-
Tube	cent chord	0.60	0.80	0.85	0.89	0.925	0.96	1	Tube	cent chord	0.60	0.80	0.85	0.89	0.925	0.96
A 1 2 3 4 5 6 7 8 9 10 11	2.0 6.0 15.0 27.5 40.0 59.0 67.5 77.5 87.5 96.0	 504 432 358	 -0.594 597 571	 -0.571 582 568	 0.573 596 587	 -0.586 600 601	 -0.710 709 690 		86 87 88 89 90 91 92 93 94	3.0 10.0 25.0 41.0 52.5 62.5 72.5 84.0 94.0	 -0.036 038 021	 0.104 099 088	 -0.130 109 095	 -0.175 134 119	 -0.229 153 130	 -0,289 179 108
B12 13 14 15 16 17 18 19 20 21 22	2.0 6.0 15.0 27.5 40.0 59.0 67.5 77.5 88.0 95.3	660 678 691 738 690 613 542 458 346 207	528 542 540 561 580 590 599 584 540 403	-1.285 -1.140 521 531 532 532 492 410 269	-1.161 -1.090 513 540 543 541 541 511 441 300	-1.080 980 665 558 575 574 540 510 426 308 295	-1.015 938 838 751 752 741 630 520 422 480 525		95 96 97 98 99 100 101 102 103	3.0 10.0 25.0 41.0 52.5 62.5 72.5 86.3 94.5	.720 .390 .109 050 050 070 .000 .026	.735 .395 .084 069 105 089 049 040	.735 .394 .075 087 128 101 052 025 030	.714 .375 .050 123 169 138 075 040 045	.690 .360 .033 160 225 177 095 050	.690 .370 .045 155 238 229 129 060 050
C23 24 25 26 27 28 29 30 31 33	2.0 6.0 15.0 27.5 40.0 59.0 67.5 77.5 88.3 95.3	-1.424 -1.311 880 611 560 492 428 311 218 110	-1.369 -1.350 -1.002 678 530 452 400 331 290 207	-1.267 -1.239 -1.130929650544452390373260	-1.050 -1.068 -1.039 978 797 648 546 440 335	881 934 927 930 881 781 650 563 538 451	761 824 832 870 872 838 811 748 722 592		104 105 106 107 108 109 110 111 112	3.0 10.0 25.0 41.0 52.5 62.5 72.5 85.1 94.6	.716 .420 .166 .028 020 018 .020 .056	.709 .420 .159 .001 058 055 009 .033 .045	.700 .419 .153 015 079 072 021 .029 .062	.682 .402 .138 041 119 110 054 .008	.670 .395 .128 065 155 152 089 009	.675 .403 .142 051 151 162 100 040
D34 35 36 37 38 39 40 41 42 43	2.0 15.0 27.5 40.0 59.0 67.5 77.5 87.5 94.2	-1.991 848 660 561 468 350 158 080 050	-1.422 -1.302 -1.212 761 550 374 120 060 021	-1.173 -1.158 -1.034 -1.071 856 660 130 132 120	961 -1.002 -1.024 990 980 851 251 198 188	804 890 921 960 922 858 498 231 228	692 792 831 882 893 820 743 340 242		113 114 115 116 117 118 119 120 121	3.0 10.0 25.0 41.0 52.5 62.5 72.5 87.4 94.2	.698 .422 .178 .048 .010 .009 .040 .090	.675 .420 .173 .031 011 009 .031 .125 .185	.670 .419 .169 .018 034 039 .009 .079	.650 .403 .151 009 064 072 031 .045	.638 .395 .145 025 088 100 055 .019 029	.640 .405 .158 010 075 090 049 .025 019
8 44 45 46 47 48 49 50 51 52 53	6.0	-1.080	-1.520 -1.500 -1.407 -1.328 895 710 530 310 153 070	-1.253 -1.279 -1.213 -1.150 956 805 730 519 310 241 230	-1.058 -1.118 -1.071 -1.051 940 809 745 631 380 370 370	916 975 952 960 857 708 663 626 500 500	759 836 829 856 810 804 768 682 530 396 407		122 123 124 125 126 127 128 129 130 131	3.0 10.0 25.0 41.0 52.5 62.5 72.5 78.0 85.3 94.1	.710 .436 .191 .069 .040 .027 .045 .057 .089	.720 .451 .202 .066 .039 .019 .041 .056 .096	.701 .840 .190 .049 .021 .000 .014 .025 .058 .042	.698 .437 .187 .039 .006 021 011 007 .020 004		.690 .440 .186 .029 041 049 042 017 .002
F55 56 57 58 59 60 61 62 63 64	2.0 6.0 15.0 27.5 49.0 50.0 59.0 67.5 86.5 94.6	-1.948 -1.780 950 680 569 460 359 266 090	-1.535 -1.489 -1.410 -1.303 -1.020 630 515 370 085 012	-1.268 -1.268 -1.204 -1.139 -1.048 710 645 590 393 231	-1.075 -1.098 -1.070 -1.042 -1.000 735 630 610 598 475	921 958 950 931 808 667 652 660 583	762 811 820 850 820 814 632 600 595 554		132 133 134 135 136 137 138 139 140	3.0 10.0 25.0 41.0 52.5 62.5 72.5 83.4 94.0	.710 .430 .195 .075 .031 .038 .065 .107	.720 .450 .202 .071 .024 .031 .064 .121	.703 .442 .198 .062 .011 .021 .059 .129 .048	.698 .440 .190 .054 .002 .010 .050 .124 .019		.690 .442 .198 .042 018 002 .032 .100
G65 66 67 68 69 70 71 72 73 74 75	2.0 6.0 15.0 27.5 40.0 50.0 59.0 67.5 77.5 87.2 96.8	867 653	-1.470	-1.190 -1.140	-1.050 -1.048 -1.060 -1.004 900 985 874 215 050	896 939 930 949 920 920 917 900 676 040	741 792 800 830 868 818 818 624 004		141 142 143 144 145 146 147 148	3.0 10.0 25.0 41.0 52.5 62.5 72.5 84.0 92.0	.700 .415 .190 .069 .032 .040 .060 .100	.720 .440 .200 .062 .021 .040 .050 .100	.710 .432 .198 .053 .017 .024 .036 .106 .059	.704 .430 .196 .050 .009 .020 .040 .110		.704 .440 .198 .040 002 .015 .032 .154 .087
H76 77 78 79 80 81 82 83 84 85	2.0 6.0 15.0 27.5 40.0 50.0 59.0 67.5 88.3 94.2	-1.468 960 700 583 500 430 336 250 111	-1.400 -1.360 -1.190 752 651 583 445 325 183	-1.150 -1.140 -1.080 910 742 650 540 375 209	975 980 955 882 721 700 580 420 233	837 856 860 823 698 676 598 450 247	688 743 736 713 642 640 572 444 223		150 151 152 153 154 155 156 157	3.0 10.0 25.0 41.0 52.5 62.5 72.5 84.9	.757 .399 .170 .028 014 .015 .041	.785 .418 .191 .018 045 020 .018 ÷.011	.763 .413 .192 .010 058 032 .010 027	.769 .417 .197 .006 070 042 .000 034		.750 .440 .208 .009 008 050 .018 030

TABLE 22

 $\left[\Lambda = -30^{\circ}, \delta_{a_{11}} = 0^{\circ}, \alpha = 10^{\circ}\right]$

	· ·					CONFI									
			UPPER	SURFAC	E	CONFI	Ī	<u> </u>			LOWER	SURFAC	E		
	Per- cent			Mach !	lumber	 	1	Tube	Per- cent			Mach N	umber		
lube	chord	0,60	0,80				1	Luse	chord	0.60	0.80				
7	2.0 6.0 15.0 27.5 40.0 50.0 59.0 67.5 77.5 87.5 96.0	 -0.368 343 334	 0,414 380 360					86 87 88 89 90 91 92 93 94	3.0 10.0 25.0 41.0 52.5 62.5 72.5 84.0 94.0	 -0,060 072 072	 -0.119 113 114				
B12 13 14 15 16 17 18 19 20 21 22	2.0 6.0 15.0 27.5 40.0 50.0 59.0 67.5 77.5 88.0 95.3	518 555 588 612 580 528 480 451 427 370	530 562 585 622 620 560 510 465 431 402	-				95. 96 97 98 99 100 101 102 103	3.0 10.0 25.0 41.0 52.5 62.5 72.5 86.3 94.5	.809 .471 .161 .003 050 060 038 042 072	.850 .502 .159 030 097 108 074 069 090				i
30 31	67.5 77.5 88.0	542	852 851 809 737 670 580 558 492 470 428					104 105 106 107 108 109 110 111 112	52.5 62.5 72.5 85.1	.780 .501 .230 .060 003 022 002 .000 028	.815 .533 .245 .045 039 068 048 045 063				
D34 35, 36 37 38 39 40 41 42 43	2.0 15.0 27.5 40.0 50.0 59.0 67.5 77.5 87.5 94.2	962 890 862 840 781 620 538 400 301	-1.231 -1.039 830 628 534 470 542 518 470					113 114 115 116 117 118 119 120 121	3.0 10.0 25.0 41.0 52.5 62.5 72.5 87.4 94.2	.770 .513 .257 .102 .060 .030 .048 .080	.795 .539 .269 .091 .020 015 .000 .029 069				
E 44 45 46 47 48 49 50 51 52 53	2.0 6.0 15.0 27.5 40.0 50.0 59.0 67.5 77.5 88.5 95.5	973 966 930 860	-1:240 -1:259 -1:098 -:961 -:848 -:780 -:680 -:628 -:509 -:450					122 123 124 125 126 127 128 129 130 131	3.0 10.0 25.0 41.0 52.5 62.5 72.5 78.0 85.3 94.1	.780 .518 .265 .123 .080 .055 .060 .061 .090	.822 .560 .297 .130 .078 .035 .028 .022 .038 021		,		
F55 56 57 58 59 60 61 62 63 64	6.0 15.0 27.5 49.0 50.0 59.0 67.5	-1.106 -1.132 -1.120 -1.125 -1.100 -1.014 890 720 189 047	-1.495 -1.510 -1.340 -1.058 869 800 755 710 529 385					132 133 134 135 136 137 138 139 140	3.0 10:0 25:0 41.0 52.5 62.5 72.5 83.4 94.0	.790 .530 .280 .141 .085 .075 .095 .139	.828 .568 .303 .150 .080 .068 .076 .128 002				
G65 66 67 68 69 70 71 72 73 74 75	6.0 15.0 27.5	-1.472 -1.519 -1.500 -1.049 617 350 251 147 070	-1.720 -1.628 -1.523 -1.460 -1.110 930 720 540 288 060 015					141 142 143 144 145 146 147 148 149	3.0 10.0 25.0 41.0 52.5 62.5 72.5 84.0 92.0	.806 .538 .290 .141 .095 .085 .090 .129 .065	.834 .568 .312 .150 .098 .110 .092 .158 .072				
H76 77 78 79 80 81 82 83 84 85	2.0 6.0 15.0 27.5 40.0 50.0 59.0 67.5 88.3 94.2	2.300 -2.238 954 740 510 402 319 -:174	-1,663 -1,600 -1,480 -1,340 -,849 -,756 -,545 -,410 -,245			,		150 151 152 153 154 155 156 157	3.0 10.0 25.0 41.0 52.5 62.5 72.5 84.9	.880 .540 .279 .101 .048 .050 .060	.900 .562 .309 .110 .038 .040 .053 028	W.	NAC	A	

TARLE 23

 $\Lambda = -45^{\circ}, \delta_{a_n} = 0^{\circ}, \alpha = -2^{\circ}$

			UPPR	R SURPA	CE		LOWER SURPAGE								
	Per-		-		Number	 -	.*		Per-			Mach !	lumber		
Tube	cent	0.60	0,80	0,89	0,925	0,96		Tube	cent	0.60	0.80	0.89	0.925	0.96	
A 1 2 3 4 5 6 7 8 9 10 11	2.0 6.0 15.0 27.5 40.0 50.0 59.0 67.5 77.5 87.5 96.0	 -0.092 064		 0,100 -,068	-0.094	 -0.238 120		86 87 88 89 90 91 92 93 94	3.0 10.0 25.0 41.0 52.5 62.5 72.5 84.0 94.0	 -0.046 015	 -0.043 009	-0.029	-0.020	 -0.059 026	-
B12 13 14 15 16 17 18 19 20 21 22	2.0 6.0 15.0 27.5 40.0 50.0 67.5 77.5 88.0 95.3			 250 249 222 174 124 070 010		 333 394 405 392 330 244 094		95 96 97 98 99 100 101 102 103	3.0 10.0 25.0 41.0 52.5 62.5 72.5 86.3 94.5	 161 155 116 083 030 .016 .056	 132 150 118 083 029 .016		 375 161 080 052 010 -027 -060	 476 344 259 147 072 030 .000	
C23 24 25 26 27 28 29 30 31 32 33	2.0 6.0 15.0 27.5 40.0 50.0 67.5 77.5 88.0 95.3	.353 .120 044 130 170 160 152 106 060	.395 .152 043 158 203 188 180 126 080 .008	.410 .167 045 190 261 225 158 102 013	. \$20 .176 041 200 291 340 314 241 164 043	.440 .190 021 185 283 340 322 274 248 160		104 105 106 107 108 109 110 111 112	3.0 10.0 25.0 41.0 52.5 62.5 72.5 85.1 94.6	627 374 259 116 049 002	853 485 365 133 061 007 .034	829 439 455 144 068 017	826 490 457 344 152 029	811 644 454 383 315 213 149	
D34 35 36 37 38 39 40 41 42 43	2.0 15.0 27.5 40.0 50.0 59.0 67.5 77.5 87.5 94.2	.268 038 107 158 160 117 090 .000	.295 034 118 178 186 152 080 020 .018	.298 038 128 200 210 192 100 048 009	.298 043 138 210 228 220 124 080 040	.294 050 142 217 217 220 120 078 038		113 114 115 116 117 118- 119 120 121	3.0 10.0 25.0 41.0 52.5 62.5 72.5 87.4 94.2	455 285 229 198 163 056 .014 .028	567 330 285 246 202 079 .005	632 364 301 281 241 118 051 017	670 466 321 289 244 138 050 052	689 505 383 303 237 121 038 041	
45 46 47 48 49 50 51 52 53	2.0 6.0 15.0 27.5 40.0 50.0 59.0 67.5 77.5 88.5 95.5	.271 .090 037 107 151 151 136 110 061 .098	.291 .105 040 118 170 170 151 121 069 010 009	.295 .100 052 135 198 180 148 069 .079 003	.294 .100 059 145 210 211 191 160 065 .073 009	.260 .070 100 185 250 260 239 200 082 .059 025		122 123 124 125 126 127 128 129 130 131	3.0 10.0 25.0 41.0 52.5 62.5 72.5 78.0 85.3 94.1	374 246 211 181 129 103 059 025 .008	444 287 248 214 155 126 078 040 004	489 301 272 240 171 142 093 051 016	518 328 295 261 112 149 102 058 020 007	-,514 -,351 -,347 -,297 -,190 -,151 -,112 -,059 -,021 -,009	
F55 56 57 58 59 60 61 62 63 64	2.0 6.0 15.0 27.5 49.0 50.0 59.0 67.5 86.5 94.6	 .091 035 105 148 149 131 103 005	.109 030 112 161 165 145 118 011	 .105 041 130 180 185 161 140 025				132 133 134 135 136 137 138 139 140	3.0 10.0 25.0 41.0 52.5 62.5 72.5 83.4 94.0					326 325 284 242 151 090 019 009	
G65 66 67 68 69 70 71 72 73 74 75	2.0 6.0 15.0 27.5 40.0 50.0 67.5 77.5 87.2 96.8	.302 .115 010 081 130 134 110 081 055 .035	.330 .135 005 089 140 149 120 091 069 .030	.335 .132 012 101 160 171 141 112 081 .019	.350 .139 011 107 170 180 150 123 083 .009	.315 .112 040 140 202 212 189 161 120 024 020		141 142 143 144 145 146 147 148 149	3.0 10.0 25.0 41.0 52.5 62.5 72.5 84.0 92.0	328 228 185 156 125 060 042 .016	371 262 215 181 145 086 057 .004	379 279 236 196 161 092 068 002	375 278 263 200 169 099 076 006	371 278 267 225 181 110 098 016	
H76 77 78 79 80 81 82 83 84 85	2.0 6.0 15.0 27.5 40.0 50.0 67.5 88.3 94.2	012	.291 .119 .000 071 121 141 122 095 020 011	.310 .120 .000 080 140 162 145 115 030 .003	.310 .142 .010 072 140 170 151 124 030 .008	.295 .120 010 090 160 209 180 175 055 020		150 151 152 153 154 155 156 157	3.0 10.0 25.0 41.0 52.5 62.5 72.5 84.9	299 176 .322 159 130 .078 022	334 186 .224 184 153 092 025 026	338 177 .168 208 173 104 027	337 162 .117 231 196 109 025 .029	336 147 .080 221 256 148 027	

TABLE 24

 $\left[\Lambda = -45^{\circ}, \delta_{a_{11}} = 0^{\circ}, \alpha = 2^{\circ}\right]$

			UPPER	SURPAC	E		. CONFIDI 	ENTIA 	L		LOWER	SURFAC	E		
	Per-			Mach N	-				Per-			Mach N	umber		•
Tube	cent chord	0.60	0.80	0.89	0.925	0.96		Tube	cent chord	0.60	0.80	0.89	0.925	0.96	
A 1 2 5 4 5 6 7 8 9 10 11	2.0 6.0 15.0 27.5 40.0 50.0 59.0 67.5 77.5 87.5 96.0		 -0.100 070	-0.080 052	 -0.053 030	 -0.123 065		86 87 88 89 90 91 92 93 94	3.0 10.0 25.0 41.0 52.5 62.5 72.5 84.0 94.0	-0.028 003	 -0.032 005 	 -0.036 005	 -0.035 005	 -0.098 049	
B12 13 14 15 16 17 18 19 20 21 22	2.0 6.0 15.0 27.5 40.0 50.0 59.0 67.5 77.5 88.0 95.3			290 152 145 125 093 098		644 597 560 421 282 128 060		95 96 97 98 99 100 101 102 103	3.0 10.0 25.0 41.0 52.5 62.5 72.5 86.3 94.5	 065 088 069 055 013 .036		 136 139 106 079 -003 -031 -078	 187 172 139 093 003 .032 .082	 239 268 235 214 151 065 .005	
C23 24 25 26 27 28 29 30 31 32 33	2.0 6.0 15.0 27.5 40.0 50.0 67.5 77.5 88.0 95.3	680 510 411 338 240 210 147 090	703 592 578 463 368 262 160 100	583 540 548 580 600 525 411 172 070	510 510 530 561 575 530 532 440 332 094	430 460 541 570 514 390 370 251		104 105 106 107 108 109 110 111 112	3.0 10.0 25.0 41.0 52.5 62.5 72.5 85.1 94.6	.262 .069 042 	.270 .065 064 - 083 019 .015 .055	.260 .051 095 114 037 .003	.243 .036 120 165 075 035 .010	.241 .038 121 210 155 113 091	
D34 35 36 37 38 39 40 41 42 43	2.0 15.0 27.5 40.0 50.0 59.0 67.5 77.5 87.5 94.2	450 338 310 300 262 200 093 030	481 398 372 370 328 240 120 041	432 422 410 410 375 304 164 083 040	388 428 440 438 325 170 102 060	332 410 430 451 407 333 171 093 050	·	113 114 115 116 117 118 119 120 121	3.0 10.0 25.0 41.0 52.5 62.5 72.5 87.4 94.2	.185 .060 032 068 068 022 .050	.181 .053 045 085 087 035 .034 .030	.168 .043 062 106 108 057 .014	.150 .031 075 120 125 077 007	.140 .026 079 120 122 081 004 025	
£44 45 46 47 48 49 50 51 52 53 54	2.0 6.0 15.0 27.5 40.0 50.0 59.0 67.5 77.5 88.5 95.5	421 352 320 302 291 260 219 151 080 .055	451 400 371 350 348 300 252 173 093 .045	\\$35 \\$10 \\$00 \\$00 \\$39 \\$39 \\$30 \\$30 \\$35 \\$05 \\$05	385 390 400 400 355 311 200 110 030	210 241 269 295 300 251 211 100 .000 .160		122 123 124 125 126 127 128 129 130 131	3.0 10.0 25.0 41.0 52.5 62.5 72.5 78.0 85.3 94.1	.123 .053 042 075 063 052 032 012 .028	.219 .068 037 065 059 049 028 009 .037	.211 .060 049 088 071 062 040 015	193 .048 062 099 081 071 049 019 .026	.172 .030 080 117 098 086 064 024 .019	
F55 56 57 58 59 60 61 62 63 64	2.0 6.0 15.0 27.5 49.0 50.0 59.0 67.5 86.5 94.6			-390 -375 -365 -358 -320 -295 -200 -950 -011	 360 371 373 365 328 310 229 055 015		·	132 133 134 135 136 137 138 139 140	3.0 10.0 25.0 41.0 52.5 62.5 72.5 83.4 94.0	 .051 037 070 070 043 020 .031	 .066 033 071 070 041 019 .046 .034	 .059 044 081 049 030 .042 .025	 .045 055 105 090 057 041 .040	 .028 073 115 106 071 058 .028 .008	
G65 66 67 68 69 70 71 72 73 74 75	2.0 6.0 15.0 27.5 40.0 50.0 59.0 67.5 77.5 87.2 96.8	288271250248241221190160039 .000	300 300 280 275 275 245 215 183 040 002	179302300295300270240225046010 .018	231 281 295 295 302 275 250 242 040 012	060130158171181170142125115 .029 .105		141 142 143 144 145 146 147 148	3.0 10.0 25.0 41.0 52.5 62.5 72.5 84.0 92.0	.177 .036 043 072 068 046 026 .029 .030	.206 .054 036 068 066 044 022 .040	.210 .052 042 076 075 055 031 .034	.201 .040 049 082 081 059 037 .031	.194 .037 058 092 090 070 050 .018 .021	
H76 77 78 79 80 81 82 83 84 85	2.0 6.0 15.0 27.5 40.0 50.0 59.0 67.5 88.3 94.2	223 231 200 193 200 181 148 110 030 003	223 249 220 211 215 203 161 121 040 010	205 245 220 215 231 221 180 141 049 018	170 229 210 200 225 225 181 140 045	.110 008 075 071 059 070 100 055 039		150 151 152 153 154 155 156 157	3.0 10.0 25.0 41.0 52.5 62.5 72.5 84.9	.153 .038 .226 098 095 057 017 .006	.188 .069 .163 101 102 060 007	.200 .083 .130 116 120 072 008 .018	202 .089 .087, -127 -134 078 006 .020	.207 .097 .053 136 178 086 006	
ٿ	1	L .30,	1.020	L	<u> </u>	FIDENT	 A	Щ	I		T	NACA	- مممر	<u> </u>	

TABLE 25

$$\left[\Lambda = -45^{\circ}, \, \delta_{\mathbf{a}_{\mathbf{n}}} = 0^{\circ}, \, \alpha = 7^{\circ}\right]$$

			(JPPRI	R SURFA			_ CONFI	DENTI.	AL		LOWER	SURFAC	Б		•	
	Per-		07111		lumber			_	Per-		Mach Number					
Tube	cent	0.60	0.80	0.89	0.925	0.96	T	Tube	cent	0,60	0.80	0.89	0.925	0.96	1	
A 1 2 3 4 5 6 7 8 9 10 11	2.0 6.0 15.0 27.5 40.0 50.0 59.0 67.5 77.5 87.5 96.0		 -0.339 299		-0.438 -438			86 87 88 89 90 91 92 93 94	3.0 10.0 25.0 41.0 52.5 62.5 72.5 84.0 94.0	 -0.022 008		 -0,101 088	 -0.130 121	 -0.159 164		
B12 13 14 15 16 17 18 19 20 21 22	2.0 6.0 15.0 27.5 40.0 50.0 59.0 67.5 77.5 88.0 95.3	672 580 460 352 258 163 088	632 644 602 540 462 369 232		 662 672 655 613 562 482			95 96 97 98 99 100 101 102 103	3.0 10.0 25.0 41.0 52.5 62.5 72.5 86.3 94.5	 038 022 028 032 .003 .010	 .000 063 072 075 043 036 037	 033 102 117 115 080 073 071	 044 115 141 139 102 101 096	 036 109 144 129 099 125 117		
C23 24 25 26 27 28 29 30 31 32 33	2.0 6.0 15.0 27.5 40.0 50.0 59.0 67.5 77.5 88.0 95.3	800 810 758 700 580 418 343 260 195 110	635 748 621 608 540 521 458 350 270 192	798 812 740 690 621 538 530 430 205	783 780 738 717 698 620 561 478 330 231	800 810 762 750 731 647 564 485 330 254		104 105 106 107 108 109 110 111 112	3.0 10.0 25.0 41.0 52.5 62.5 72.5 85.1 94.6	.649 046 .148 	.676 .403 .146 051 022 017 022	.686 .411 .143 	.689 .415 .145 	.694 .425 .158 082 044 051 056		
D34 35 36 37 38 39 40 41 42 43	2.0 15.0 27.5 40.0 50.0 59.0 67.5 77.5 87.5 94.2	-1.465 628 482 436 351 252 155 104 082	-1.255 943 560 446 367 331 191 146 113	-1.217 -1.052 804 497 340 338 173 130 121	-1.172 -1.058 988 812 311 268 133 100 101	-1.060 981 953 902 500 437 170 100 093		113 114 115 116 117 118 119 120 121	3.0 10.0 25.0 41.0 52.5 62.5 72.5 87.4 94.2	.566 .365 .176 .076 .031 .037 .050	.561 .370 .182 .074 .026 .023 .050 .004	.556 .370 .183 .075 .023 .015 .054 012	.559 .373 .187 .079 .025 .018 .043 003	.565 .383 .200 .091 .038 .025 .057		
E 44 45 46 47 48 49 50 51 52 53	2.0 6.0 15.0 27.5 40.0 50.0 59.0 67.5 77.5 88.5 95.5	-1.421 -1.379 922 478 400 338 265 205 130 081 088	-1.539 -1.478 -1.041552419351281225150094090	-1.315 -1.270 -1.159 989 565 348 237 185 120 081	-1.341 -1.300 -1.210 -1.113 975 753 415 500 357 210 149	-1.050 -1.019 952 906 871 704 300 240 160 102	·	122 123 124 125 126 127 128 129 130	3.0 10.0 25.0 41.0 52.5 62.5 72.5 78.0 85.3 94.1	.489 .281 .175 .086 .061 .036 .037 .048 .053	.572 .368 .186 .091 .078 .036 .033 .044 .052	.566 .364 .184 .087 .063 .031 .025 .040 .051	.563 .361 .182 .084 .061 .027 .021 .037 .048	.556 .356 .177 .079 .057 .023 .013 .031 .044	·	
F55 56 57 58 59 60 61 62 63 64	2.0 6.0 15.0 27.5 49.0 50.0 59.0 67.5 86.5 94.6	-1.374 680 505 400 330 260 200 100 075	 -1.478 -1.000 611 447 359 280 220 103 070	-1.135	-1.290 -1.210 -1.142 761 860 719 334 139 108			132 133 134 135 136 137 138 139 140	3.0 10.0 25.0 41.0 52.5 62.5 72.5 83.4 94.0	.352 .173 .084 .047 .033 .050 .064	.367 .187 .091 .050 .045 .053 .066	.364 .187 .087 .045 .041 .049 .064	 .363 .185 .085 .044 .038 .047 .063 004	.359 .183 .081 .039 .035 .045 .061		
G65 66 67 68 69 70 71 72 73 74	2.0 6.0 15.0 27.5 40.0 50.0 67.5 77.5 87.2 96.8	-1.548 -1.070 600 445 315 246 190 110 079 042	-1.304 -1.280 882 540 413 340 265 199 112 072 030	-1.125 580 451	-1.300 -1.260 -1.148 -1.099 890 -1.509 351 319 183 130 113	-1.009 969 858 781 482 427 305 235 135 090 060		141 142 143 144 145 146 147 148 149	3.0 10.0 25.0 41.0 52.5 62.5 72.5 84.0 92.0	.549 .331 .166 .077 .047 .043 .041 .074	.565 .352 .182 .087 .053 .048 .044 .073	.568 .357 .186 .089 .054 .045 .042 .073	.570 .358 .188 .091 .045 .045 .041	.569 .360 .189 .093 .045 .045 .076		
H76 77 78 79 80 81 82 83 84 85	2.0 6.0 15.0 27.5 40.0 50.0 59.0 67.5 88.3 94.2	-1.434 660 475 371 320 280 230 190 135 098	-1.295 -1.245 502 408 355 312 260 220 162 120	-1.021	-1.257 -1.189 -1.050 542 541 360 360 350 245	925 769 690 383 380 330 270 231 192 124		150 151 152 153 154 155 156 157	3.0 10.0 25.0 41.0 52.5 62.5 72.5 84.9	.539 .314 368 .037 .000 .017 .043 009	.563 .344 .188 .044 .001 .016 .048 001	.574 .359 .227 .046 001 .053 001	.580 .367 .233 .049 002 .012 .059 .003	.585 .375 .249 .053 005 .011 .065		

TABLE 26

 $\Lambda = -45^{\circ}, \, \delta_{a_{11}} = 0^{\circ}, \, \alpha = 10^{\circ}$

CONFIDENTIAL LOWER SURPACE															
-			UPPE					-			LOWER				
Tube	Per- cent				Number	Γ		Tube	Per- cent			Mach N			
A 1 2 3 4 5 6 7 8 9 10 11	2.0 6.0 15.0 27.5 40.0 59.0 67.5 77.5 87.5 96.0	0.60 -0.190 229 		0.89 -0.252 356 	0.925 	0,96		86 87 88 89 90 91 92 93 94	3.0 10.0 25.0 41.0 52.5 62.5 72.5 84.0 94.0	-0.023 022		0.89 -0.111 120	0.925 -0.131 139 	0.96 -0.155 167 	
B12 13 14 15 16 17 18 19 20 21 22	2.0 6.0 15.0 27.5 40.0 50.0 59.0 67.5 77.5 88.0 95.3			 488 550 581 575 560 527 430	620 635 648 622 592 549 442			95 96 97 98 99 100 101 102 103	3.0 10.0 25.0 41.0 52.5 62.5 72.5 86.3 94.5	 .097 .020 .005 006 .015 .004 009		 .049 042 069 083 063 082 112	.041 054 092 107 085 105 126		
023 24 25 26 27 28 29 30 31 32 33	2.0 6.0 15.0 27.5 40.0 50.0 67.5 77.5 88.0 95.3	,780 ,800 ,791 ,790 ,725 ,580 ,546 ,500 ,412 ,172	580 591 611 658 640 638 580 528 282	698 708 723 730 702 668 660 552 388	785 788 782 782 756 698 700 633 594 454	999 980 942 885 861 755 750 602 491 412		104 105 106 107 108 109 110 111 112	3.0 10.0 25.0 41.0 52.5 62.5 72.5 85.1 94.6	.751 .506 .241 .030 .050 .047 .053	.769 .513 .235 .004 .025 .019	.806 .541 .248 020 .001 003	.810 .545 .253 036 018 041 058	.813 .550 .263 036 022 057 070	
D34 35 36 37 38 39 40 41 42 43	2.0 15.0 27.5 40.0 50.0 59.0 67.5 77.5 87.5 94.2	-1.149 -1.063 800 815 828 580 172 063 028	825 871 950 925 931 753 203 .039	-1.131 -1.072 950 828 773 622 490 250 115	-1.100 -1.021 951 802 719 519 590 389 230	-1.208 -1.110 -1.041913464421480333269		113 114 115 116 117 118 119 120 121	3.0 10.0 25.0 41.0 52.5 62.5 72.5 87.4 94.2	.651 .480 .279 .159 .104 	.658 .487 .286 .161 .101 084 .098	.675 .501 .298 .168 .099 .066 .086	.681 .506 .303 .171 .100 .063 .065	.685 .511 .314 .184 .112 .071 .069	
E 44 45 46 47 48 49 50 51 52 53	2.0 6.0 15.0 27.5 40.0 50.0 57.5 77.5 88.5 95.5	-1.160 -1.195 -1.200 -1.110 750 644 542 330 149 030	-1.020 -1.032 -1.053 -1.090 -1.080 -1.019 921 600 041 .050	-1.482 -1.399 -1.360 981 880 644 502 464 280 111		-1.210 -1.175 -1.112 -1.045 990 830 451 449 531 230 119		122 123 124 125 126 127 128 129 130 131	3.0 10.0 25.0 41.0 52.5 62.5 72.5 78.0 85.3 94.1	.649 .470 .278 .166 .132 .093 .087 .090 .093	.670 .487 .293 .177 .141 .100 .091 .097 .104	.514 .487 .292 .175 .135 .086 .069 .071 .075	.679 .491 .295 .178 .137 .085 .067 .072 .076	.676 .488 .294 .177 .136 .084 .063 .070 .077	
P55 56 57 58 59 60 61 62 63 64	2.0 6.0 15.0 27.5 49.0 50.0 59.0 67.5 86.5 94.6	 -1.240 -1.160 -1.012 -1.034 661 260 173 090 052	-1.124 -1.100 -1.010 750 200			-1.165 -1.105 -1.049 790 783 698 588 130 105		132 133 134 135 136 137 138 139 140	3.0 10.0 25.0 41.0 52.5 62.5 72.5 83.4 94.0	 .468 .281 .167 .117 .102 .100 .100	 .487 .296 .179 .126 .106 .102 .104 .039	.489 .297 .178 .122 .098 .091 .090	.494 .382 .181 .125 .100 .093 .093	 .492 .302 .181 .124 .102 .094 .095	
G65 66 67 68 69 70 71 72 73 74	2.0 6.0 15.0 27.5 40.0 50.0 67.5 77.5 87.2 96.8	-1.298 -1.321 -1.361 -1.210 290 285 265 200 115 090 064	-1.305 -1.329 -1.302 -1.160 822 320 262 262 160 115 090	-1.434 -1.345 -1.295 -1.161 710 440 330 310 170 120 102		-1.179 -1.141 -1.060981950630345271190115		141 142 143 144 145 146 147 148 149	3.0 10.0 25.0 41.0 52.5 62.5 72.5 84.0 92.0	.48 .457 .160 .114 .084 .085 .085 .085	.672 .478 .291 .175 .127 .109 .089 .102	.681 .485 .300 .181 .131 .106 .089 .103 .044	.692 .494 .309 .190 .138 .120 .095 .109 .048	.694 .498 .313 .194 .143 .117 .097 .113	
H76 77 78 79 80 81 82 83 84 85	2.0 6.0 15.0 27.5 40.0 50.0 59.0 67.5 88.3 94.2	-1.880 -1.820 625 491 411 359 320 275 249 179	-1.580 852 579 570 400 354 318 290 210	-1.380 -1.300 -1.130 605 538 429 381 330 341 225		-1.132 -1.072 959 512 490 410 370 312 338 231		150 151 152 153 154 155 156 157	3.0 10.0 25.0 41.0 52.5 62.5 72.5 84.9	.659 .447 149 .120 .067 .067 .079 020	.685 .472 .204 .134 .078 .087 007	.703 .491 .232 .146 .076 .071 .094 010	.717 .506 .241 .158 .085 .078 .104	.722 .513 .250 .166 .090 .083 .112 .002	

TARLE 27

 $\left[\Lambda = 30^{\circ}, \delta_{\alpha_{n}} = -10.0^{\circ}, \alpha = -2^{\circ}\right]$

			UPPE	SURPA	CE		- CONF	IDENTIAL LOWER SURFACE								
<u> </u>	Per-				Number			1	Per-							
Tube	cent chord	0.60	0.80	0.85	0.89	T		Tube	cent	0.60	0.80	0.85	0.89			
A 1 2 3 4 5 6 7 8 9 10	2.0 6.0 15.0 27.5 40.0 50.0 59.0 67.5 77.5 87.5 96.0	0.266 .134 020 099 	0.372 .157 .007 089	0.378 .166 .007 079	0.390 .181 .032 -:065 			86 87 88 89 90 91 92 93 94	10.0 25.0 41.0	-0.421 518 	-0.448 	-0.424	-0.384 256 			
B12 13 14 15 16 17 18 19 20 21 22	2.0 6.0 15.0 27.5 40.0 50.0 59.0 67.5 77.5 88.0 95.3	.320 .093 -062 -166 -239 -256 -238 -129 -047	.360 .1034 053 183 328 328 360 180 076	.368 .130 046 178 360 359 303 210 096	.371 .142 032 166 294 370 402 372 263 122			95 96 97 98 99 100 101 102 103	3.0 10.0 25.0 41.0 52.5 62.5 72.5 86.3 94.5	475 298 285 279 239 176 092	538 336 357 381 340 244 132 .037	-,520 -,335 -,368 -,430 -,254 -,157 -,024	478 316 356 433 481 497 248 055			
C23 24 25 26 27 28 29 30 31 32 33	2.0 6.0 15.0 27.5 40.0 59.0 67.5 77.5 88.0 95.3	. 288 288 286 266 246 283 283 283 283	.360 .098 091 .224 337 361 324 103 .027 .115	368 - 368 - 368 - 369 - 159 -	.365 .115 077 223 370 464 472 139 .041 .123			104 105 106 107 108 109 110 111 112	3.0 10.0 25.0 41.0 52.5 62.5 72.5 85.1 94.6	501 354 305 294 248 168 063 .056 .136	598 441 402 404 334 218 081 .060	602 455 436 520 403 227 083 .059 .139	570 421 437 532 601 437 095 .060			
D34 35, 36 37 38 39 40 41 42 43	2.0 15.0 27.5 40.0 50.0 59.0 67.5 77.5 87.5 94.2	.277 082 185 259 264 206 179 130 .041	.315 104 349 355 264 030 043	.314 109 267 398 411 350 322 039 .046 .125	.312 105 269 435 517 454 400 032 .068			113 114 115 116 117 118 119 120 121	3.0 10.0 25.0 41.0 52.5 62.5 72.5 87.4 94.2	517 347 318 245 156 045 .086 .129	650 445 429 318 189 050 .094 .144	690 478 494 336 185 045 045 148	651 462 501 611 301 006 .106			
E 44 45 46 47 48 49 50 51 52 53 54	2.0 6.0 15.0 27.5 40.0 50.0 67.5 77.5 88.5 95.5	.393 .127 045 145 210 204 167 122 .041 .212 .152	.387 .111 083 207 294 283 231 177 .037 .226	.382 .102 100 240 349 332 270 166 .033 .229	.368 .089 117 274 435 450 393 098 .052 .233			122 123 124 125 126 127 128 129 130	3.0 10.0 25:0 41.0 52.5 62.5 72.5 78.0 85.3 94.1		639 453 420 391 306 228 098 037 .053	682 503 501 465 240 103 041 053 .134	660 474 552 601 545 365 053 .078 .149			
P55 56 57 58 59 60 61 62 63 64	2.0 6.0 15.0 27.5 49.0 50.0 59.0 67.5 86.5 94.6	.393 .149 026 119 174 154 102 .017	.376 .127 069 184 254 218 162 .009	.366 .116 090 220 301 256 198 .016 	.345 .094 119 269 408 339 199 .047			132 133 134 135 136 137 138 139 140	3.0 10.0 25.0 41.0 52.5 62.5 72.5 83.4 94.0	,	685 481 433 420 375 287 231 057 001	744 535 501 474 425 315 249 058	674 530 571 626 605 331 226 044			
G65 66 67 68 69 70 71 72 73 74 75	2.0 6.0 15.0 27.5 40.0 50.0 59.0 67.5 77.5 87.2 96.8	.442 .186 .017 078 130 118 061 .028 .229 	.424 .165 016 123 185 164 099 .041 .243 	.409 .148 039 154 219 193 127 .041 .243 126	.378 .119 075 194 253 200 162 .000 .272 161			141 142 143 144 145 146 147 148 149	3.0 10.0 25.0 41.0 52.5 62.5 72.5 84.0 92.0		769 514 477 474 397 214 103 006	804 598 575 597 530 327 203 103	709 595 597 689 688 497 287 073			
H76 77 78 79 80 81 82 83 84 85	2.0 6.0 15.0 27.5 40.0 50.0 59.0 67.5 88.3 94.2	.392 .129 023 118 160 142 082 066 .142 .115	.383 .110 067 174 214 176 123 109 .157	.368 .091 088 206 241 191 151 146 .169	.494 .066 121 260 285 214 188 087 .191 .163			150 151 152 153 154 155 156 157	3.0 10.0 25.0 41.0 52.5 62.5 72.5 84.9	Z/>	862 400 425 372 279 171 114 .069	949 675 582 369 270 164 109	836 666 624 632 542 176 056 .119			

TABLE 28

 $\left[\Lambda = 30^{\circ}, \, \delta_{a_{\Omega}} = -10.0^{\circ}, \, \alpha = 0^{\circ}\right]$

		·	TIENET.	SURPAC	P	L .	- CONFI	DENTIA	ــــــــ		LOWER	SURFACI	E.		$\neg \neg$
i			UPPER	Mach N				-	Per-		DOWER	Mach No			
Tube		0.60	0.80		0.89	0.925	0.96	Tube	cent chord	0.60	0.80	0.85	0.89	0.925	0.96.
A 1 2 3 4 5 6 7 8 9 10	2.0 6.0 15.0 27.5 40.0 50.0 59.0 67.5 77.5 87.5 96.0	0.60 0.073 066 143 189 	0.80 0.127 032 129 191 	0.85 0.153 010 112 182 	0.185 .019 085 157 	0.116 048 152 224 	0.250	86 87 88 89 90 91 92 93	3.0 10.0 25.0 41.0 52.5 62.5 72.5 84.0 94.0	-0.106 	-0.096 160 	-0.086 163 	-0.074 	-0.050 131 	0.005
B12 13 14 15 16 17 18 19 20 21 22	2.0 6.0 15.0 27.5 40.0 50.0 59.0 67.5 77.5 88.0 95.3	.048 104 196 267 316 320 290 230 153 059	.099 080 198 299 390 415 385 319 214 085	126 058 183 294 410 471 484 411 271 106	.161 026 157 267 392 455 516 489 433 167	.096 091 218 330 451 520 585 572 573 441	.231 .0555 073 177 289 363 424 406 413 384	95 96 97 98 99 100 101 102 103	3.0 10.0 25.0 41.0 52.5 62.5 72.5 86.3 94.5	131 134 191 210 186 136 060 .027	140 143 229 273 253 186 093 .011	139 142 243 311 220 113 004	132 132 241 333 357 292 137 027	111 118 219 323 370 407 286 130	055 061 161 259 308 364 317 231
C23 24 25 26 27 28 29 30 31 32 33	2.0 6.0 15.0 27.5 40.0 50.0 59.0 67.5 77.5 88.0 95.3	.034 124 227 294 344 333 296 091	.081 113 252 353 448 395 117 .014 .106	.112 091 241 361 491 543 516 124 .110	.148 058 212 337 474 550 605 320 .020	.084 121 274 398 533 604 701 634 334 049	.219 .030 124 241 367 463 534 513 513 387 083	104 105 106 107 108 109 110 111	3.0 10.0 25.0 41.0 52.5 62.5 72.5 85.1 94.6	130 167 206 223 196 134 036 .074 .160	157 203 307 294 260 171 050 .084 .179	165 219 291 350 306 194 056 .086	164 218 301 412 413 222 054 .093	148 195 281 413 484 490 191 .051 .184	091 130 232 347 425 466 397 211 .086
D34 35 36 37 38 39 40 41 42 43	2.0 15.0 27.5 40.0 50.0 67.5 77.5 87.5 94.2	030 236 294 344 330 269 241 047 .026	005 279 385 465 361 356 047 .036	.027 280 411 563 551 464 422 040 .051	.098 251 381 540 532 524 222 .014	.001 314 444 596 697 660 644 464 289 069	.154 162 284 426 532 606 605 563 433 188	113 114 115 116 117 118 119 120 121	3.0 10.0 25.0 41.0 52.5 62.5 72.5 87.4 94.2	130 149 209 189 137 .008 .108	166 188 271 238 190 .015 .125 .163	172 211 313 273 229 .011 .127	204 223 347 347 208 .008 .137	.102	141 152 284 498 510 532 136 .096
£44 45 46 47 48 49 50 51 52 53	2.0 6.0 15.0 27.5 40.0 50.0 67.5 77.5 88.5 95.5	.080 104 203 259 296 270 221 170 .013 .195 .150	021 138 269 355 422 369 310 159 .012 .219	.086 142 296 414 532 472 391 107 .024 .221	.118 117 282 409 556 583 526 251 027 .117 .142	.164 075 244 374 511 619 552 408 216 089 036	.190 046 211 338 471 594 671 694 635 378 166	122 123 124 125 126 127 128 129 130 131	3.0 10.0 25.0 41.0 52.5 62.5 72.5 78.0 85.3 94.1	151 193 223 239 200 167 115 .004 .073 .135	148 242 272 293 245 205 102 .005 .080	159 282 306 329 275 236 068 .001 .078	340 376 312 265 043 006	255 367 487 488 460 335 143 020	161 214 344 455 526 580 524 490 430
F55 56 57 58 59 60 61 62 63 64	2.0 6.0 15.0 27.5 49.0 50.0 59.0 67.5 86.5 94.6	.081 078 184 231 256 214 157 005	.057 123 260 329 362 294 245 001	.057 135 302 404 457 375 208 .021	.082 120 299 423 564 510 493 .024	.129 079 262 388 532 573 571 386	.155 049 229 352 493 611 688 686	132 133 134 135 136 137 138 139 140	3.0 10.0 25.0 41.0 52.5 62.5 72.5 83.4 94.0	194 200 243 269 262 220 194 065 009	178 217 286 326 316 266 220 069 004	180 233 310 363 350 291 230 070	253 335 392 376 297 215 076	252 376 496 586 531 362 114	199 225 364 466 573 615 601 398 371
G65 66 67 68 69 70 71 72 73 74 75	2.0 6.0 15.0 27.5 40.0 50.0 59.0 67.5 77.5 87.2 96.8	.160 032 128 177 201 170 095 1.034 224 149	118 -084 -196 -250 -276 -227 -143 043 245 -	.096 113 237 298 320 260 160 .048 .252	.089 135 289 406 386 325 230 .085 .250	.129103266397476438424247 .005	.161 070 230 365 499 620 665 623 606 	141 142 143 144 145 146 147 148 149	3.0 10.0 25.0 41.0 52.5 62.5 72.5 84.0 92.0	240 254 280 306 290 240 214 197 030	203 275 338 361 292 265 205 019	182 282 365 452 416 353 325 172 003	279 373 479 498 460 407	429 532 534 482 463 181	184 269 420 515 591 515 556 466
H76 77 78 79 60 81 82 83 84 85	2.0 6.0 15.0 27.5 40.0 50.0 59.0 67.5 88.3 94.2	143 + 059 - 140 - 193 - 208 - 171 - 121 - 114 - 158 - 140	120 -106 -209 -263 -266 -209 -177 -082 184 163	104 - 132 - 250 - 310 - 294 - 231 - 210 - 048 198 274	077 169 295 393 328 281 257 089 213 189	.096 163 307 456 394 393 304 128 131 .153	.120 130 275 428 559 615 584 518 429 343	150 151 152 153 154 155 156 157	3.0 10.0 25.0 41.0 52.5 62.5 72.5 84.9	267 244 264 266 227 173 131	278 297 345 334 270 223 109 .103	279 321 424 386 313 267 091	296 488 504 448 251	497 563 517 466 189	260 276 461 612 685 652 641 373

 $\left[\Lambda = 30^{\circ}, \, \delta_{\Delta_{\rm n}} = -10.0^{\circ}, \, \alpha = 2^{\circ}\right]$

<u> </u>			UPPRI	SURPA	CE		CON	FIDI	IDENTIAL LOWER SURPACE							
	Per-				Number		<u> </u>	1 }		Per-			Mach N			·
Tube	cent chord	0.60	0.80	0.85	0.89	0.925	0.96	1	Tube	cent	0.60	0.80	0.85	0.89	0.925	0.96
A 1 2 3 4 5 6 7 8 9 10 11	2.0 6.0 15.0 27.5 40.0 50.0 59.0 67.5 77.5 87.5 96.0	-0.270 290 283 290 	-0.189 255 275 304 	-0.135 218 250 289 	-0.082 -175 213 253 	-0.030 130 171 212 	0.025 073 112 159 		86 87 88 89 90 91 92 93	3.0 10.0 25.0 41.0 52.5 62.5 72.5 84.0 94.0	0.157 053 	0.167	0.166	0.171	0.185	0.218
B12 13 14 15 16 17 18 19 20 21 22	2.0 6.0 15.0 27.5 40.0 50.0 59.0 67.5 77.5 88.0 95.3	327 346 350 376 400 386 347 269 177 071	- 324 - 361 - 361 - 508 - 552 - 385 - 385 - 205	186 282 339 412 520 575 619 562 346 170	124 235 291 372 463 541 600 580 560	066 184 248 327 420 429 550 542 534 428	008 121 186 266 356 430 481 468 471 429		95 96 97 98 99 100 101 102 103	3.0 10.0 25.0 41.0 52.5 62.5 72.5 86.3 94.5	.148 .007 091 139 093 096 .050	.145 .108 110 176 175 128 048 .038	.134 002 122 201 209 157 066 .023	.133 .002 124 224 259 193 094 003	.141 .014 098 228 278 312 203 078	.172 .054 073 186 237 294 247 161
C23 24 25 26 27 28 29 30 31 32 33	2.0 6.0 15.0 27.5 40.0 50.0 67.5 77.5 88.0 95.3	374 381 393 410 433 400 356 120 002	300 376 437 506 583 544 500 140 .103	225 330 412 497 619 663 663 187 .005	151 273 362 453 566 630 667 583 070	086 217 311 407 508 589 677 628 345 045	024 151 250 345 444 514 609 594 417 111		104 105 106 107 108 109 110 111 112	3.0 10.0 25.0 41.0 52.5 62.5 72.5 85.1 94.6	.163 .011 099 149 140 091 091 .171	034 005 131 194 182 122 018 .105 .194	.005 021 152 230 213 146 028 .105 .199	.114 028 170 276 261 185 048 .096	.117 023 171 310 382 360 135 .063 .157	.144 .014 131 267 348 395 309 043
D34 35, 36 37 38 39 40 41 42 43	2.0 15.0 27.5 40.0 50.0 59.0 67.5 77.5 87.5 94.2	464 411 417 437 401 333 308 103 .011	412 494 555 604 548 476 310 090 .029	325 469 568 691 608 537 150 .027	234 412 514 636 611 573 531 357 189 160	160 356 627 579 644 583 591 480 334 252	075 293 395 507 603 640 633 619 515		113 114 115 116 117 118 119 120 121	3.0 10.0 25.0 41.0 52.5 62.5 72.5 87.4 94.2	.174 .030 097 130 096 026 .127 .154	.156 .011 132 163 110 022 .147	.126 011 159 189 134 .014 .146	.097 031 194 233 181 020 .132 .136	.084 039 219 369 328 089 .106	.105 006 179 419 425 381 .032 .068
£44 45 46 47 48 49 50 51 52 53	2.0 6.0 15.0 27.5 40.0 50.0 67.5 77.5 88.5 95.5	382 386 379 379 384 341 279 145 029 .172 .145	409 476 511 540 551 483 407 132 011 .200	335 443 505 595 689 634 524 195 004 .146	237 373 453 559 623 598 469 343 206 076 025	129 293 388 508 613 710 679 638 437 024	054 226 329 451 554 658 730 728 666 441 207		122 123 124 125 126 127 128 129 130 131	3.0 10.0 25.0 41.0 52.5 62.5 72.5 78.0 85.3 94.1	.170 005 107 157 138 117 071 036 .102 .143	.185 023 127 189 165 135 099 001 .115 .163	.161 049 149 214 185 152 122 .016 .112	.133 058 180 258 228 197 164 050 .073	.089 095 234 383 358 316 210 036 .030	.084 097 221 375 443 451 414 372 137
F55 56 57 58 59 60 61 62 63 64	2.0 6.0 15.0 27.5 49.0 50.0 59.0 67.5 86.5 94.6	376363361352342283207030	445 476 515 516 483 416 218 022	385 460 530 617 631 592 326 .026	282 387 586 511 582 543 185 	164 300 409 530 626 608 616 500	083 229 349 470 580 676 722 711		132 133 134 135 136 137 138 139 140	3.0 10.0 25.0 41.0 52.5 62.5 72.5 83.4 94.0	.145 005 124 184 197 177 160 068 002	.173 .002 138 214 232 201 178 064	.154 013 156 239 256 220 190 066 .009	.121 038 184 279 304 263 221 119 033	.067 087 242 379 422 365 228 288 150	.055 088 232 384 495 547 501 376 294
G65 66 67 68 70 71 72 73 74 75	2.0 6.0 15.0 27.5 40.0 50.0 59.0 67.5 77.5 87.2 96.8	287 316 305 295 285 236 135 . 005 . 205 158	397 455 441 418 385 320 151 .018 .228	384 504 526 566 472 397 102 .033 .228	- 283 - 434 - 578 - 507 - 504 - 238 - 059 - 142 - 200	165 1345 1547 1566 1568 115 115 115	- 057 - 066 - 356 - 356 - 583 - 661 - 621 - 173		141 142 143 144 145 146 147 148 149	3.0 10.0 25.0 41.0 52.5 62.5 72.5 84.0 92.0	.116 051 155 221 226 203 178 178 022	.170 036 177 271 277 245 205 195 011	.166 045 196 308 314 285 227 202 006	.140 068 222 367 387 363 281 222	.087 112 265 416 519 470 426 266 181	.061 123 280 422 531 517 486 376 363
H76 77 78 79 80 81 82 83 84 85	2.0 6.0 15.0 27.5 40.0 50.0 59.0 67.5 88.3 94.2	237 302 276 279 267 204 178 -040 -153	339 439 396 374 338 284 258 .064 .185	369 519 491 433 376 329 149 . 058 . 200 . 182	305 484 537 533 493 411 034 069 204 194	210 408 484 496 449 339 246 179 022 .012	111 317 410 525 553 560 543 522 392 327	1	150 151 152 153 154 155 156 157	3.0 10.0 25.0 41.0 52.5 62.5 72.5 84.9	.064 074 170 204 184 135 112 .080	.103 082 219 263 226 165 115	.105 093 261 307 252 194 107 .121	.084 115 319 412 328 280 065 .138	.043 131 362 517 580 523 449	.012 133 367 515 620 603 585 311
ш				1	CO	NFIDEN	——— -	L	, ,			1	سمره	۳۳	ـــ س	-

TABLE 30

 $\left[\Lambda = 30^{\circ}, \delta_{\mathbf{a}_{\underline{\mathbf{n}}}} = -10.0^{\circ}, \alpha = 4^{\circ}\right]$

		_	[[PPR	R SURFAC	EE.		CONF	IDE 1	NTIA I	·L ——		LOWER	SURFAC	E		
	Per-	Γ	0116		lumber			l	-	Per-		204011	Mach N			_
Pube	cent chord	0.60	0.80	0.85	0.89	0.925	0.96	1	Tube	cent chord	0.60	0.80	0.85	0.89	0.925	0.96
A 1 2 3 4 5 6 7 8 9 10 11	2.0 6.0 15.0 27.5 40.0 59.0 67.5 77.5 87.5 96.0	9.690 543 423 385 	-0.611 527 438 427	-0.544 489 4102 402	-0.485 420 359 357 	-0.364 360 311 308	-0.254 267 231 240		86 87 88 89 90 91 92 93 94	3.0 10.0 25.0 41.0 52.5 62.5 72.5 84.0 94.0	0.367	0.378	0.380	0.377	0.925 0.382 .132 	0.391
112 13 14 15 16 17 18 19 20 21 22	2.0 6.0 15.0 27.5 40.0 50.0 67.5 77.5 88.0 95.3	800 622 509 479 476 443 380 296 197 089	740 635 546 569 646 617 430 264 120	644 597 523 544 616 694 733 696 466 217	522 524 476 493 565 642 680 648 336	426 457 447 442 518 586 624 616 523	303 316 316 438 498 540 529 528 486		95 96 97 98 99 100 101 102 103	3.0 10.0 25.0 41.0 52.5 62.5 72.5 86.3 94.5	.364 .150 .004 069 074 053 .004	.360 .153 .020 087 102 075 010	.224 .020 004 102 126 098 029	.345 .146 013 126 167 132 062 .013	.346 .154 008 131 199 183 107 020	.350 .171 .015 107 166 221 160 063
23 24 25 26 27 28 29 30 31 32 33	2.0 6.0 15.0 27.5 40.0 50.0 59.0 67.5 77.5 88.0 95.3	890 679 560 517 510 466 389 153 023	811 735 643 676 757 724 676 159 004	676 695 596 653 735 763 767 767 360 057	539 608 527 596 676 765 717 680 293 024	435 529 466 538 615 700 751 696 539 271	311 397 375 452 523 587 675 664 448 177		104 105 106 107 108 109 110 111 112	3.0 10.0 25.0 41.0 52.5 62.5 72.5 85.1 94.6	.383 .161 .001 077 086 050 .018 .101	.366 .154 014 106 112 068 .015 .117	.353 .144 028 131 140 092 001 .110 .192	.335 .130 049 163 191 140 040 .092 .170	.327 .129 053 200 250 201 083 .051 .132	.326 .142 036 183 275 302 162 .037 .115
034 35 36 37 38 39 40 41 42 43	2.0 15.0 27.5 40.0 50.0 59.0 67.5 77.5 87.5 94.2	-1.012 582 524 518 456 363 257 134 003	927 739 763 833 767 579 216 109 .025	754 687 750 800 748 671 521 313 139 042	595 601 681 726 688 566 514 423 302 246	478 534 617 697 713 697 671 574 470	333 433 522 603 680 691 676 571 402		113 114 115 116 117 118 119 120 121	3.0 10.0 25.0 41.0 52.5 62.5 72.5 87.4 94.2	.401 .181 .067 077 040 .023 .131 .147	.378 .172 012 099 051 .040 .150	.355 .156 032 132 084 .016 .130	.323 .130 068 190 139 035 .098	.305 .120 088 257 194 068 .057	.294 .123 082 335 301 108 .085 .047
44 45 46 47 48 49 50 51 52 53 54	2.0 6.0 15.0 27.5 40.0 50.0 59.0 67.5 77.5 88.5 95.5	-1.007 728 555 495 468 393 302 186 057 .093 .113	-1.024 -1.035 822 766 742 447 315 178 026 .145	787 875 782 775 763 740 547 330 129 .142	605 733 694 714 799 762 741 535 278 .003 052	465 616 597 642 735 750 732 679 549 154	345 507 506 575 670 757 813 807 754 606 315		122 123 124 125 126 127 128 129 130 131	3.0 10.0 25.0 41.0 52.5 62.5 72.5 78.0 85.3 94.1	.407 .163 .001 080 083 077 026 003 .083 .143	.403 .175 006 094 093 082 032 002 .135 .170	.372 .140 119 122 119 109 058 025 .116 .148	.331 .110 070 178 179 179 122 090 .048	.304 .079 097 227 216 231 168 136 .007	.273 .065 120 285 330 287 243 025 .014 005
255 56 57 58 59 60 61 62 63 64	2.0 6.0 15.0 27.5 49.0 50.0 59.0 67.5 86.5 94.6	987 726 535 472 426 340 216 069	-1.049 -1.068 857 759 567 369 222 042	816 895 840 798 750 732 437 097	644 747 728 739 702 708 596 375	505 621 623 666 722 708 707 547	378 503 522 590 689 774 818 772		132 133 134 135 136 137 138 139 140	3.0 10.0 25.0 41.0 52.5 62.5 72.5 83.4 94.0	.396 .161 014 105 136 130 127 083 004	.399 .170 014 117 152 137 130 063	.367 .145 -:037 145 181 164 150 091	.322 .109 077 198 247 224 196 211 100	.291 .085 101 231 301 275 214 325 219	.250 .054 132 289 383 338 222 401 354
65 66 67 68 69 70 71 72 73 74 75	2.0 6.0 15.0 27.5 40.0 50.0 59.0 67.5 77.5 87.2 96.8	895 668 495 410 365 282 160 023 .147 	-1.028 -1.072 869 449 436 322 164 006 .167	808 913 888 788 763 370 146 024 .117	638 762 771 720 702 600 438 318 .015	480 614 640 626 594 521 422 360 258 	350 494 537 608 673 722 716 698 666 		141 142 143 144 145 146 147 148 149	3.0 10.0 25.0 41.0 52.5 62.5 72.5 84.0 92.0	.382 .126 040 140 165 149 145 160	.406 .143 044 166 195 156 161 160	.376 .117 072 205 235 196 190 189 012	.328 .077 116 277 335 273 276 303 112	.301 .055 133 1406 375 344 647 295	.253 .020 157 328 440 443 407
776 777 78 79 80 81 82 83 84 85	2.0 6.0 15.0 27.5 40.0 50.0 59.0 67.5 88.3 94.2	748 592 429 373 333 266 149 014 .151 .146	989 876 757 371 382 286 142 003 .181	819 908 825 759 331 157 069 .023 .171 .174	650 771 800 688 496 225 168 107 .018	495 631 705 624 514 333 267 209 121 085	367 518 594 632 659 670 617 552 521 475		150 151 152 153 154 155 156 157	3.0 10.0 25.0 41.0 52.5 62.5 72.5 84.9	.320 .078 080 146 143 105 093 .087	348 - 106 - 189 - 122 - 054 - 129	.318 .055 155 245 220 156 116 .115	.267 .012 - 224 - 379 - 351 - 294 - 155 .045	245 .001 - 241 - 429 - 539 - 491 - 445 - 079	.207 011 251 427 548 587 556 507

TARLE 31

 $\left[\Lambda = 30^{\circ}, \, \delta_{\mathbf{a_n}} = -10.0^{\circ}, \, \alpha = 7^{\circ}\right]$

			UPPRE	SURPAC	CE.	-	-CONFIG	ENTIA	L		LOWER	SURFAC	B		
	Per-		0,,,,,,	Mach !					Per-			Mach N	umber	_	
Тире	cent	0.60	0.80	0.85	0.89	0.925	0.96	Tube	cent chord	0.60	0.80	0.85	0.89	0.925	0.96
A 1	2.0	-1.890	-1.354	-1.120	-0.957	-0.812	-0.677	86	3.0	0.585	0.581	0.574	0.571	0.574	0.584
2	6.0 15.0	882 646	-1.225 683	997 628	858 569	745 501	628 411	87 88	10.0	.167	.178	.173	.175	.183	.205
5	27.5 40.0	534	615	563	512	452	374	89 90	41.0 52.5		==		==		
6	50.0				==		==	91	62.5 72.5						
7 8	59.0 67.5							92 93	84.0		==	==	==		
9 10	77.5 87.5							94	94.0						
11	96.0		7	-1.164	 993	 838	688	95		576	551	51.0		523	536
B12	6.0	-1.951 -1.052	-1.418 -1.287	-1.121 -1.045	991	861	729 691	96 97	3.0 10.0 25.0	.576 .326 .132	.554 .321 .127	.540 .308	.533 .306	.531	•537 •323
14 15	15.0 27.5	737 629	898 746	699	879 653	736 584	504	98	41.0	.028	.015	.116 003	016	.115 019	.135
16 17	40.0 50.0	581 517	798 856	758 810	697 744	625 672	550 581	100	52.5 62.5	.006	015 013	042	066 065	080 083	070 078
18 19	59.0 €7.5	434 339	835 486	845 830	783 773	714 707	624 624	101	72.5 86.3	.051 .108	.039 .105	.009	017 .043	035 .029	030 .042
20	77.5 88.0	232 111	300 159	582 345	773 763 515	699 639	614 573	103	94.5						
22	95.3					819					•				
C23	2.0 6.0	-2.065 1.240	-1.433 -1.396	-1.166 -1.172	986 -1.018	879	653 740	104 105	3.0 10.0	.591 -337	•553 •316	.532 .298	.519 .287	.511	.512 .310
25 26	15.0 27.5	801 670	-1.231 805	-1.074 -1.007	963 885	847 776	725 661	106 107	25.0 41.0	.132	.115 005	.094 035	.082 059	.078 071	.091 062
27 28	40.0 50.0	602 531	917 968	831 906	744 838	711 763	641 670	108	52.5 62.5	010 .007	036 015	072 053	104 087	128 112	129 111
29 30	59.0 67.5	418	568	-1.004	924	840	746 	110	72.5 85.1	.054 .117	.045	.010	024 .052	044 -038	031 .067
31 32	77.5 88.0	167 050	187 071	365 271	540 353	842 442	750 418	112	94.6	.159	.165	.122	.076	.062	.094
33	95.3	.003	011	131	218	, 308	247 663								,
D34 35	2.0 15.0	-1.916 878	-1.472 -1.339	-1.195 -1.142	-1.006 -1.008	834 879 905	749 781	113 114	10.0	•599 •353	· 555 · 326	.526 .301	.508 .285	.492 .275	.484 .276
36	27.5 40.0	663 596	-1.248 -1.128	-1.118 -1.064	-1.010 954	914	815	115 116	25.0 41.0	.137	.112	.083	.063	.051 	- 055
38	50.0 59.0	498 396	869 362	-1.030 511-	945 797	889 819	802 788	117 118	52.5 62.5	007 .007	036 013	085 064	122 102	155 132	160 127
40	67.5 77.5	266 137	197 099	303 246	597 370	856 774	807 790	119 120	72.5 87.4	.053	.054 .141	.004	029 .053	050 .028	028 .087
42	87.5 94.2	027	030	226 216	309 300	501 385	683 432	121	94.2	.132	.131	.089	.008	002	.035
€44	2.0	-1.739	-1.509	-1.238	-1.032	874	701	122	3.0	.604	.570	-538	.510 .247	.491	.446
45	15.0	-1.411 909	-1.444 -1.331	-1.212 -1.140	-1.047 -1.004	907 896	761 776	123 124	10.0 25.0	.315 .130	.308	•285 •083	.055	.039	.199 .007
47	27.5 40.0	628 530	-1.241 808	-1.058 793	932 811	905 870	820 874	125 126	41.0 52.5	.017 010	003 027	046 076	081 116	105 138	145 152
49 50	50.0	424 312	554 384	603 530	602 528	823 729	912 877	127 128	62.5 72.5	028 .013	045 .006	103 051	153 098	183 118	211 141
51 52	67.5 77.5	194 081	236 094	458 366	482 432	648 585	856 841	129 130	78.0 85.3	.036	.045	019 .039	074 011	089	103 .010
53 54	88.5 95.5	.041	.071	232 172	368 342	515 475	759 655	131	94.1	.126	146	.048	033	023	.003
F55	2.0	-1.762	-1.513	-1.245	-1.030	864	682	132	3.0	.603	.564	.528	.499	-477	.427
56 57	6.0 15.0	-1.553 872	-1.429 -1.302	-1.197 -1.082	-1.047 990	907 905	761 777	133 134	10.0	.340 .117	.319	.285	.260 .043	.243 .029	-203 002
58 59	27.5 49.0	592 486	-1.048 659	925 619	927 784	926 901	826 881	135 136	41.0 52.5	006 061	027 085	072 139	106 178	125 203	149 242
60	50.0	363	484	509 433	620 468	878 831	923 955	137	62.5	076	099 114	157 178	190	204	244
61	67.5	237 102	337 218	376	400	603	917	138 139	83.4	092 086	132	276	186 398	169 428	167 437
63 64	86.5 94.5		==		==	==		140	94.0	020	065	212	308	373	399
G65 66	2.0	-1.640 -1.327	-1.360 -1.281	-1.244 -1.214	-1.029 -1.050	840 887	654 754	141 142	3.0	.587 .307	.556 .284	.518 .245	.489 .218	.468 .203	.417 .161
67 68	15.0 27.5	787 519	-1.095 737	-1.082 978	972 898	843 782	774 824	143 144	25.0 41.0	046	.060 093	006 153	006 191	015 200	044 229
69 70	40.0 50.0	39 ¹ 4	532 396	647 486	790 656	689 568	880 927	145 146	52.5 62.5	094 108	152 155	228	277	292	324
71 72	59.0	150	291	307	509	510	955	147	72.5	118 132	192	227 280	279 303	318 291	335 282
¥73:	67.5 77 4 5	046 .040	211 118	234 201	348 252	489 462	916 907	149	84.0 92.0	042	233 124	412 223	338	707 557	657 582
74 75	96.8	.137	.039	045	059	232	- 548								
H76 77	2.0 6.0	-1.641 -1.005	929 887	886 850	820 810	806 791	665 751	150 151	3.0 10.0	.529 .238	.481 .197	.447 .161	.414 .131	.400 .123	.357 .098
78 79	15.0 27.5	589 457	697 520	691 544	662 501	754 617	802 837	152 153	25.0 41.0	.021 078	039 164	091 239	137 324	145 338	160
80 81	40.0 50.0	358 252	395 318	449 378	428 385	492 442	912 954	154 155	52.5 62.5	099 079	190 165	265 223	419	448 456	356 468 499
82 83	59.0	138 036	258 196	316 254	345 297	412 380	952 889	156	72.5	092	190	238	366 321	405	443
84	67.5 88.3	.084	100	161 118	253 222	376	- 837	157	84.9	.050	057 	097	200	375	
85	94.2	.099	064	110		359	775	<u> </u>		ا ممر	MACA	_ شممم			
						IDENTI					~				

TABLE 32

 $\begin{bmatrix} \Lambda = 30^{\circ}, \delta_{\mathbf{a}_{\mathbf{n}}} = -5.1^{\circ}, \alpha = -2^{\circ} \end{bmatrix}$ $\longrightarrow \text{CONFIDENTIAL}$

			UPPER	SURPAG	CE	 .	CONFI	ENTIAL 			LOWER	SURPAC	E .		-
	Per-			-					Per-	Γ -		Mach N	имье г		
Tube	cent chord	0,60	0.80	0.85	0.89			Tube	cent chord	0.60	0.80	0.85	0.89		
A 1 2 3 4 5 6 7 8 9 10 11	2.0 6.0 15.0 27.5 40.0 59.0 67.5 77.5 87.5 96.0	0.327 .110 026 103 	0.362 .146 .001 092	0.376 .162 .013 083	0.405 .180 .036 066 	,		86 87 88 89 90 91 92 93 94	3.0 10.0 25.0 41.0 52.5 62.5 72.5 84.0 94.0	-0.408 231 	-0.433 268 	-0.424 276 	-0.383 202 	-	
B12 13 14 15 16 17 18 19 20 21 22	2.0 6.0 15.0 27.5 40.0 50.0 59.0 67.5 77.5 88.0 95.3	.168 .086 072 174 247 261 243 191 130 042	.344 057 186 289 320 311 252 178 055	. 356 .125 051 184 308 364 362 304 209 083	.367 140 035 167 300 373 407 365 264 122	·		95 96 97 98 99 100 101 102 103	3.0 10.0 25.0 41.0 52.5 62.5 72.5 86.3 94.5	466 298 284 280 241 176 093 .001	520 330 351 373 336 240 133 013	520 346 373 446 438 303 160 027	472 312 356 433 481 509 274 059		
C23 24 25 26 27 28 29 30 31 32 33	2.0 6.0 15.0 27.5 40.0 50.0 67.5 77.5 88.0 95.3	.171 .078 091 199 271 267 254 090 .024	.345 .098 092 228 337 319 327 105 .033 .153	.352 .103 090 237 381 420 389 113 .025 .115	.362 .117 077 227 377 473 496 156 .032 .109			104 105 106 107 108 109 110 111	3.0 10.0 25.0 41.0 52.5 62.5 72.5 85.1 94.6	487 350 307 294 251 170 066 .048	581 428 397 397 329 214 081 .060	603 456 438 528 417 228 085 .054 .146	572 420 437 537 603 472 100 -048 -145		
D34 35 36 37 38 39 40 41 42 43	2.0 15.0 27.5 40.0 50.0 67.5 77.5 87.5 94.2	.274 093 197 270 274 213 184 067 .028	.303 107 240 351 361 256 256 064 .038 .110	.308 112 264 411 431 351 303 073 .040	.315 106 260 429 531 480 416 036 .066			113 114 115 116 117 118 119 120 121	3.0 10.0 25.0 41.0 52.5 62.5 72.5 87.4 94.2	497 340 316 246 156 043 .086 .126	627 431 420 309 183 047 .103	692 481 500 335 180 042 .086 .143	654 467 499 623 312 004 .090		
E 44 45 46 47 48 49 50 51 52 53	2.0 6.0 15.0 27.5 40.0 50.0 67.5 77.5 88.5 95.5	.376 .110 062 164 232 230 193 151 .007 .189	.383 .100 091 221 314 312 260 210 .008 .201 .166	.381 .097 104 248 369 364 303 208 001 .203	.380 .100 108 265 427 478 412 150 .020 .215 .194			122 123 124 125 126 127 128 129 130	3.0 10.0 25.0 41.0 52.5 62.5 72.5 78.0 85.3 94.1	525 363 315 286 225 169 064 008 .073 .138	627 442 403 365 276 195 067 001 .088	670 483 483 434 288 199 062 .005 .098	690 486 558 591 528 214 024 032 .111		
F55 56 57 58 59 60 61 62 63 64	2.0 6.0 15.0 27.5 49.0 50.0 59.0 67.5 86.5 94.6	.368 .123 052 150 212 203 157 069	367 116 - 083 - 207 - 291 - 275 - 216 - 092	.364 .111 099 238 343 315 253 090	.359 .106 110 264 422 391 342 046			132 133 134 135 136 137 138 139 140	3.0 10.0 25.0 41.0 52.5 62.5 72.5 83.4 94.0	570 374 327 298 258 181 110 038 .061	664 463 406 378 316 209 116 .002	727 518 472 429 352 217 116 -004 -088	703 548 577 609 537 185 097	, -	:
G65 66 67 68 70 71 72 73 74 75	2.0 6.0 15.0 27.5 40.0 50.0 59.0 67.5 77.5 87.2 96.8	.401 .143 031 124 183 180 130 056 .106 106	.399 .136 052 169 248 239 177 075 .116	.392 .128 067 196 284 271 206 076 .120	.384 .121 080 220 317 287 227 114 .151			141 142 143 144 145 146 147 148 149	3.0 10.0 25.0 41.0 52.5 62.5 72.5 84.0 92.0	639 406 338 311 261 166 111 022 .048	700 492 431 398 319 167 113 004 .069	757 563 526 490 346 181 103 009 083	734 620 598 626 563 195 071 .037		,
H76 77 78 79 80 81 82 83 84 85	2.0 6.0 15.0 27.5 40.0 50.0 59.0 67.5 88.3 94.2	.350 .092 055 150 189 130 102 .119	.349 .077 093 207 260 235 151 153 .134	.346 .070 112 240 253 202 175 .152	.344 .066 130 287 338 271 236 173 .178			150 151 152 153 154 155 156 157	3.0 10.0 25.0 41.0 52.5 62.5 72.5 84.9	598 357 304 269 203 118 052 .102	- 732 - 398 - 382 - 324 - 228 - 116 - 037 - 128	854 582 461 335 223 105 026 140	839 671 613 543 172 042 011 155		

TABLE 33

$\begin{bmatrix} \Lambda = 30^{\circ}, \, \delta_{\mathbf{a}_{\underline{n}}} = -5.1^{\circ}, \, \alpha = 0^{\circ} \end{bmatrix}$ CONFIDENTIAL

			UPPE	SURPAG	E	_					LOWER	SURPAC	B		
Tube	Per-			Mach N	lumber			Tube	Per-			Mach N	umber		
Tube	chord	0.60	0.80	0.85	0.89	0.925	0.96	1000	chord	0.60	0.80	0.85	0.89	0.925	0.96
A 1 2 3 4 5 6 7 8 9 10	2.0 6.0 15.0 27.5 40.0 59.0 67.5 77.5 87.5 96.0	0.061 078 147 193 	0.111 046 135 199 	0.139	0.177 .010 088 161 	0.206 041 056 128 		86 87 88 89 90 91 92 93 94	3.0 10.0 25.0 41.0 52.5 62.5 72.5 84.0 94.0	-0.093 145 	-0.084 156 	-0.074 159 	-0.064 148 	-0.036 125 	
B12 13 14 15 16 17 18 19 20 21 22	2.0 6.0 15.0 27.5 40.0 50.0 67.5 77.5 88.0 95.3	.031 114 205 274 325 324 294 230 155 056	.081 091 204 308 401 421 397 316 214 080	.024 070 193 302 421 482 507 408 103	.150 035 159 270 397 454 525 487 166	.180 002 126 235 355 426 489 461 286		95 96 97 98 99 100 101 102 103	3.0 10.0 25.0 41.0 52.5 62.5 72.5 86.3 94.5	120 130 190 210 187 137 061 .026	126 137 226 270 253 186 084 .012	126 139 240 310 313 222 116 .004	121 122 238 330 359 311 148 028	094 106 212 319 370 412 334 138	·
C23 24 25 26 27 28 29 30 31 32 33	2.0 6.0 15.0 27.5 40.0 50.0 67.5 77.5 88.0 95.3	.017 134 237 304 352 332 302 103 .013	.062 124 258 365 459 430 406 118 .019	.093 104 248 373 504 555 537 130 .021	.138 061 216 342 478 538 620 321 .010	.168 028 180 303 440 510 540 541 038		104 105 106 107 108 109 110 111	3.0 10.0 25.0 41.0 52.5 62.5 72.5 85.1 94.6	121 163 204 237 211 137 037 .070 .158	147 197 255 276 258 171 051 .077 .196	154 212 288 350 307 196 059 .080	159 214 380 416 423 234 057 .083 .192	131 185 274 408 481 509 253 .027 .174	
D34 35 36 37 38 39 40 41 42 43	2.0 15.0 27.5 40.0 50.0 59.0 67.5 77.5 87.5 94.2	040 248 307 356 341 267 242 073 .021	007 290 390 483 422 338 358 078 .033	.015 290 412 572 601 493 360 066 .046	.063 254 379 540 611 525 523 258 008	.093 220 329 497 603 587 558 379 206 083		113 114 115 116 117 118 119 120 121	3.0 10.0 25.0 41.0 52.5 62.5 72.5 87.4 94.2	118 141 205 185 134 .011 .105 .140	154 179 264 234 185 .019 .118 .157,	180 205 309 270 228 .013 .126 .166	202 221 346 357 215 .010 .128	181 197 330 493 458 318 .090 .126	_
E 44 45 46 47 48 49 50 51 52 53 54	2.0 6.0 15.0 27.5 40.0 50.0 67.5 77.5 88.5 95.5	.043 132 227 281 321 300 247 205 017 .173 .142	.068 148 276 368 435 400 338 217 025 .194 .169	.088139295414543507437156012196177	.135 102 269 398 546 626 549 320 068 .085 .124	.171 067 236 365 503 623 587 450 225 .020	0.201 033 198 324 456 577 641 588 470 054 022	122 123 124 125 126 127 128 129 130 131	3.0 10.0 25.0 41.0 52.5 62.5 72.5 78.0 85.3 94.1	115 167 200 211 171 135 073 .037 .103 .157	140 222 255 269 217 177 027 .038 .117	155 252 288 301 244 204 009 .039 .121 .184	194 292 346 368 304 237 026 .021 .106 .159	170 222 346 457 408 382 074 .014 .093 .128	-0.134 191 314 428 478 445 445 419 357 199
F55 56 57 58 59 60 61 62 63 64	2.0 6.0 15.0 27.5 49.0 50.0 59.0 67.5 86.5 94.6	.031 118 215 267 300 268 214 099	.046 136 275 354 409 354 298 107	.058 138 302 413 515 441 361 077	.106 103 284 410 561 552 555 116	.139 068 253 378 524 594 570 485	.169 035 215 337 476 595 616 603	132 133 134 135 136 137 138 139 140	3.0 10.0 25.0 41.0 52.5 62.5 72.5 83.4 94.0	142 164 208 224 207 151 086 002	163 201 260 285 258 186 096 .000	175 220 288 319 287 202 099 .004 .089	219 265 337 380 340 228 115 012	205 241 354 461 472 329 131 027	171 198 331 438 540 532 402 181 050
065 66 67 68 69 70 71 72 73 74	2.0 6.0 15.0 27.5 40.0 50.0 67.5 77.5 87.2 96.8	.076 098 187 232 264 238 178 071 .100 	.078 121 237 305 349 305 246 067 .114 	.076 136 271 357 405 347 297 047 .121	.107 119 278 405 481 412 394 043 .117 	.139 091 257 393 417 385 362 207 079 	.167 059 218 352 451 439 434 382 299 	141 142 143 144 145 146 147 148 149	3.0 10.0 25.0 41.0 52.5 62.5 72.5 84.0 92.0	154 195 227 241 215 165 126 .004 .059	161 238 287 311 268 211 162 ·.021	155 252 315 350 299 241 125 .028 .087	184 287 369 426 367 306 087 .030	176 275 395 491 449 343 213 .026	153 242 385 483 507 441 458 250 141
H76 77 78 79 80 81 82 83 84 85	2.0 6.0 15.0 27.5 40.0 59.0 67.5 88.3 94.2	.057 118 184 232 254 225 168 151 .123	.060 152 244 306 321 270 228 205 .154 .157	.058 172 285 360 357 296 268 156 .169	.071 169 312 441 405 372 349 018 .189	.098 152 293 442 398 394 330 094 160	.126 120 260 409 389 343 269 108 036	150 151 152 153 154 155 156 157	3.0 10.0 25.0 41.0 52.5 62.5 72.5 84.9	177 192 221 218 177 119 042	212 250 293 275 210 168 020 .139	217 274 342 306 234 198 002 .150	243 292 463 385 337 059 .011 .162	238 266 459 462 444 269 .011 .189	224 214 438 554 532 510 362 .009

TABLE 34

 $\left[\Lambda = 30^{\circ}, \, \delta_{\mathbf{a}_{11}} = -5.1^{\circ}, \, \alpha = 2^{\circ}\right]$

<u> </u>	·		UPPRI	SURPAG			CONFID	ENTIAL 1	•		LOWER	SURPAC	E		
	Per-			Mach !				ı	Per-			Mach N			
Tube	cent chord	0.60	0.80	0.85	0.89	0.925	0.96	Tube	cent chord	0.60	0.80	0.85	0.89	0.925	0.96
A 1 2 5 6 7 8 9 10 11	2.0 6.0 15.0 27.5 40.0 50.0 59.0 67.5 77.5 87.5 96.0	-0.286 302 286 289	-0.206 268 279 313	-0.155 231 253 292 	-0.093 185 215 255 	-0.046 143 176 216 		86 87 88 89 90 91 92 93 94	3.0 10.0 25.0 41.0 52.5 62.5 72.5 84.0 94.0	0.166	0.174 	0.177	0.179	0.195	
B12 13 14 15 16 17 18 19 20 21 22	2.0 6.0 15.0 27.5 40.0 59.0 67.5 77.5 88.0 95.3	347 359 359 383 407 393 342 268 179 071	271 337 374 440 523 540 491 380 247 101	209 298 348 420 526 580 634 564 340 156	246 246 298 377 548 5586 5584 5584	088 200 258 334 428 507 560 538 392		95 96 97 98 99 100 101 102 103	3.0 10.0 25.0 41.0 52.5 62.5 72.5 86.3 94.5	.158 .016 088 136 131 094 027	.149 .008 109 177 178 082 052 .039	.146 .006 117 200 211 156 069 .024	.140 .008 120 220 256 193 094 002	.152 .023 110 222 274 309 199 061	
C23 24 25 26 27 28 29 30 31 32 33	2.0 6.0 15.0 27.5 40.0 50.0 67.5 77.5 88.0 95.3	397 394 403 421 441 362 362 130 001	- 321 - 388 - 449 - 521 - 601 - 555 - 525 - 146 - 006	249 342 419 507 628 680 680 204 204 007	169 194 368 461 573 637 687 511 103 .108	107 229 319 416 521 569 689 401 401		104 105 106 107 108 109 110 111	3.0 10.0 25.0 41.0 52.5 62.5 72.5 85.1 94.6	.171 .016 094 148 138 091 008 .085	.152 003 129 196 183 125 021 .097	.136 015 149 229 214 149 033 .115 .203	.122 023 166 273 261 187 047 .091 .191	.126 016 165 307 373 342 121 .056 .162	
D34 35 36 37 38 39 40 41 42 43	2.0 15.0 27.5 40.0 50.0 59.0 67.5 77.5 87.5 94.2	481 426 431 450 413 339 289 111 .007	416 540 566 647 578 487 237 110 .026	332 476 569 696 689 631 562 130 .046	235 418 516 639 620 582 535 363 202 087	165 366 471 587 654 603 604 480 343 258		113 114 115 116 117 118 119 120 121	3.0 10.0 25.0 41.0 52.5 62.5 72.5 87.4 94.2	.186 .044 091 127 078 028 .127 .152	.160 .016 129 163 108 051 .147 .173	 003 157 188 135 020 .149 .174	.104 025 190 314 176 .015 .123 .130	.092 031 213 360 315 041 .099	
E 44 45 46 47 48 49 50 51 52 53	2.0 6.0 15.0 27.5 40.0 50.0 59.0 67.5 77.5 88.5 95.5	439 423 410 410 418 378 333 194 064 .149	413 479 515 552 580 516 459 164 047 .177	334 440 502 592 697 674 548 252 044 .124	225 366 446 552 639 625 469 359 236 108	125 288 382 497 597 622 492 401 298 201 155	-0.070 239 331 450 550 638 650 588 498 206 172	122 123 124 125 126 127 128 129 130	3.0 10.0 25.0 41.0 52.5 62.5 72.5 78.0 85.3 94.1	.194 .000 086 132 110 086 039 .012 .134 .168	.186 022 116 170 140 105 073 .072 .146 .189	.164 044 136 194 160 122 095 .082 .142 .181	.127 055 176 247 211 176 146 .016 .094 .106	.104 075 208 327 282 245 162 012 .053	0.112 065 197 353 397 361 322 189 .016
F55 56 57 58 59 60 61 62 63 64	2.0 6.0 15.0 27.5 49.0 50.0 59.0 67.5 86.5 94.6	446 417 403 397 395 345 280 130	- 49 - 48 - 527 - 546 - 54 - 470 - 386 - 107	380 457 527 614 696 628 582 057	266 377 469 577 675 624 624 325	158 292 401 518 629 635 635	098 239 349 468 577 648 638 635	132 133 134 135 136 137 138 139 140	3.0 10.0 25.0 41.0 52.5 62.5 72.5 83.4 94.0	.183 .024 093 145 146 109 060 .008	.181 .014 119 182 182 132 069 013	.160 002 136 207 205 151 075 .007	.117 037 177 263 269 213 129 060 .032	.084 064 211 323 347 288 171 128 014	.087 060 206 357 455 455 324 215 085
G65 66 67 68 69 70 71 72 73 74 75	2.0 6.0 15.0 27.5 40.0 50.0 59.0 67.5 77.5 87.2 96.8	404 398 369 361 356 310 257 078 .082	-,440 -,495 -,486 -,481 -,461 -,398 -,360 -,052 -,107 -,172	398 511 534 611 562 524 221 040 .104	279429481590529526420218028	163 337 411 530 544 522 464 355 165 	095 275 357 481 572 566 556 501 381 	141 142 143 144 145 146 147 148 149	3.0 10.0 25.0 41.0 52.5 62.5 72.5 84.0 92.0	.181 002 107 163 156 153 077 045	.193 009 139 209 196 157 105 023 .088	.183 023 158 238 220 183 130 .011	.140 062 205 312 290 251 200 .008	.107 088 233 379 422 356 330 017	.099 090 244 390 500 485 460 339 161
H76 77 78 79 80 81 82 83 84 85	2.0 6.0 15.0 27.5 40.0 50.0 59.0 67.5 88.3 94.2	352 378 329 328 322 279 231 119 .115 .126	421 500 442 422 395 340 313 .002 .150	-,419 -,560 -,551 -,500 -,148 -,400 -,215 .001 .169 .176	319 490 534 565 513 481 162 030 .146 .164	203 398 470 486 453 359 241 156 .021	134 331 413 476 433 359 291 252 150 117	150 151 152 153 154 155 156 157	3.0 10.0 25.0 41.0 52.5 62.5 72.5 84.9	.131 031 135 163 139 086 038 .108	.141 050 180 214 172 111 028 .139	.136 063 213 245 189 132 015 .149	.092 102 289 330 252 204 017 .134	.062 113 332 472 424 405 055 .085	.054 103 332 481 566 521 492 102

TABLE 35

 $\begin{bmatrix} \Lambda = 30^{\circ}, 8_{a_{11}} = -5.1^{\circ}, \alpha = 4^{\circ} \end{bmatrix}$ $\longrightarrow CONFIDENTIAL \longrightarrow$

[.			UPPER	SURPAG	E		CONF	IDENT	AL —		LOWER	SURFAC	B		
	Per-			Mach !					Per-			Mach N			
Tube	cent chord	0.60	0.80	0.85	0.89	0.925	0.96	Tube	cent chord	0.60	0.80	0.85	0.89	0.925	0.96
A 1 2 3 4 5 6 7 8 9 10	2.0 6.0 15.0 27.5 40.0 50.0 59.0 67.5 77.5 87.5 96.0	-0.722 559 430 392 	-0.619 529 434 	-0.549 494 405 404	-0.444 421 354 350 	-0.351 351 306 294		86 87 88 89 90 91 92 93 94	3.0 10.0 25.0 41.0 52.5 62.5 72.5 84.0 94.0	0.376 .046 	0.377	0.382	0.373	0.375	
B12 13 14 15 16 17 18 19 20 21 22	2.0 6.0 15.0 27.5 40.0 50.0 67.5 77.5 88.0 95.3	831 643 516 488 486 446 382 298 202 087	747 641 555 575 654 675 619 431 268 116	654 603 515 550 619 693 738 699 462 260	- 526 - 524 - 451 - 494 - 567 - 637 - 683 - 661 - 342 - 342	413 446 390 435 514 577 623 607 505		95 96 97 98 99 100 101 102 103	3.0 10.0 25.0 41.0 52.5 62.5 72.5 86.3 94.5	.376 .160 .010 065 072 052 .007	.361 .154 .000 088 104 074 010	.357 .155 004 101 126 094 028 .051	.343 .146 014 126 166 132 062 016	.338 .149 .067 136 205 193 117 024	
C23 24 25 26 27 28 29 30 31 32 33	2.0 6.0 15.0 27.5 40.0 50.0 59.0 67.5 77.5 88.0 95.3	924 705 569 531 523 463 395 160 026	818 740 648 683 766 720 672 164 005 .098	683 701 598 658 739 774 367 021	- 543 - 557 - 557 - 557 - 688 - 688	424 505 457 531 660 748 675 577 153		104 105 106 107 108 109 110 111	3.0 10.0 25.0 41.0 52.5 62.5 72.5 85.1 94.6	.393 .167 .007 076 083 049 .018 .097 .164	.366 .153 014 106 111 068 .025 .114 .190	.356 .146 026 128 138 092 001 .104 .185	.330 .129 049 168 138 038 .081 .165	.318 .123 060 206 345 215 089 .063	
D34 35 36 37 38 39 40 41 42 43	2.0 15.0 27.5 40.0 50.0 59.0 67.5 77.5 87.5 94.2	-1.080 596 543 529 471 373 263 137 009	926 743 764 843 791 478 235 115 .020	752 689 750 813 784 717 594 259 107 023	590 602 678 732 693 542 315 315	455 523 607 689 713 655 666 575 460 395		113 114 115 116 117 118 119 120	3.0 10.0 25.0 41.0 52.5 62.5 72.5 87.4 94.2	.412 .190 .013 073 036 .026 .130 .146	.282 .173 010 097 051 .048 .157 .176	.357 .158 030 127 076 .028 .136 .140	.320 .129 067 183 130 028 .088 .057	.293 .111 096 263 184 055 .062	
E44 45 46 47 48 49 50 51 52 53	2.0 6.0 15.0 27.5 40.0 50.0 59.0 67.5 77.5 88.5 95.5	-1.054 758 575 521 491 425 331 218 084 .072	-1.015 -1.035 822 785 814 550 335 209 057 .124 .141	779 870 772 773 779 752 580 340 150 012	590 721 673 704 682 671 542 400 294 202 159	469 619 598 642 665 648 591 479 379 307 268	-0.355 514 509 571 660 708 706 642 586 388 339	122 123 124 125 126 127 128 129 130	3.0 10.0 25.0 41.0 52.5 62.5 72.5 78.0 85.3 94.1	.420 .187 .018 059 058 049 .004 .110 .162	.401 .167 .003 080 072 055 006 .022 .169 .193	.369 .139 024 112 105 088 040 008 .137 .147	.328 .110 065 168 166 160 105 077 .059	.312 .093 086 211 202 214 153 121 .012	0.297 .079 097 252 259 233 184 078 .028
F55 56 57 58 59 60 61 62 63 64	2.0 6.9 15.0 27.5 49.0 50.0 59.0 67.5 86.5 94.6	-1.054 781 569 504 473 392 285 153 	-1.045 -1.069 868 799 740 441 282 135	811 891 832 795 795 769 642 121	631 735 710 725 797 741 663 257	509 624 624 664 755 736 715 398	392 514 528 587 683 749 742 722	132 133 134 135 136 137 138 139 140	3.0 10.0 25.0 41.0 52.5 62.5 72.5 83.4 94.0	.418 .184 .013 070 091 065 034 003	.401 .176 .001 090 111 079 034 .017	.366 .149 027 124 148 115 067 030	.320 .110 070 185 223 190 140 134 048	.298 .093 092 219 283 254 189 229 164	.277 .080 105 252 310 289 195 265 236
G65 66 67 68 69 70 71 72 73 74	2.0 6.0 15.0 27.5 40.0 50.0 59.0 67.5 77.5 87.2 96.8	-1.021 755 537 467 429 355 241 118 .041 .138	-1.054 -1.105 935 778 449 395 257 107 .072 	800 903 875 793 772 556 353 125 .021	629 732 756 686 663 461 329 270 203 	499 630 655 625 600 481 377 330 288 	- 383 - 521 - 559 - 606 - 600 - 590 - 549 - 505 - 457 - 247	141 142 143 144 145 146 147 148 149	3.0 10.0 25.0 41.0 52.5 62.5 72.5 84.0 92.0	.420 .162 002 090 103 051 045 044	.415 .159 016 118 130 117 053 040	.381 .129 047 159 170 121 087 067	.330 .083 101 238 259 201 168 159 013	.307 .062 125 295 371 317 283 285 120	.284 .051 128 297 403 412 357 455 342
H76 77 78 79 80 81 82 83 84 85	2.0 6.0 15.0 27.5 40.0 50.0 59.0 67.5 88.3 94.2	867 660 475 411 378 317 211 093 .110	-1.058 995 868 313 422 343 205 073 .141 .157	821 908 880 778 511 225 115 035 .128 .145	644 765 794 685 549 307 198 130 .009	514 650 705 625 513 334 264 213 117 086	401 545 607 564 538 464 390 342 267	150 151 152 153 154 155 156 157	3.0 10.0 25.0 41.0 52.5 62.5 72.5 84.9	.361 .109 .046 111 103 057 023 .129	.363 .103 083 153 136 078 022 .121	.327 .069 128 204 193 112 042 .114	.276 .023 200 321 272 210 088 .050	.252 .007 230 413 486 430 281 036	.236 .010 226 406 524 556 500 319

TABLE 36

 $\begin{bmatrix} \Lambda = 30^{\circ}, \ \delta_{\mathbf{a}_{\mathbf{n}}} = -5.1^{\circ}, \ \alpha = 7^{\circ} \end{bmatrix}$ CONFIDENTIAL

			UPPER	SURPAC	:E		CONFI	DENTIA	L		LOWER	SURFACI	3		
	Per-			Mach N					Per-			Mach No	mber		
Tube	cent chord	0.60	0.802	0.85	0.89	0.925	0.96	Tube	cent chord	0.60	0.80	0.85	0.89	0.924	0.96
A 1 2 3 4 5 6 7 8 9 10 11	2.0 6.0 15.0 27.5 40.0 50.0 59.0 67.5 77.5 87.5 96.0	-2.002 907 662 619 	-1.361 -1.197 691 610 	-1.133 -1.011 628 561 	-0.961 877 566 512 	-0.827 603 498 455 		86 87 88 89 90 91 92 93 94	3.0 10.0 25.0 41.0 52.5 62.5 72.5 84.0 94.0	0.590	0.582 .179 	0.573 .174 	0.568	0.572 .182 	
B12 13 14 15 16 17 18 19 20 21 22	2.0 6.0 15.0 27.5 40.0 50.0 67.5 77.5 88.0 95.3	-2.040 -1.107 758 641 592 526 438 346 236 120	-1.388 -1.293 -1.033 746 799 855 845 503 309 161	-1.167 -1.129 982 704 760 804 847 825 593 343	991 863 659 700 746 785 771 762 514 	843 865 745 597 633 677 719 710 703 633		98 96 97 98 99 100 101 102 103	3.0 10.0 25.0 41.0 52.5 62.5 72.5 86.3 94.5	.583 .327 .134 .028 .006 .006 .043 .107	.554 .322 .128 .016 015 011 .041 .105	.540 .311 .117 003 043 042 .010 .078	.529 .304 .108 019 070 070 021 .043	.528 .307 .111 022 084 090 018 .027	
C23 24 25 26 27 28 29 30 31 32 33	2.0 6.0 15.0 27.5 40.0 50.0 59.0 67.5 77.5 88.0 95.3	-2.109 -1.323 826 686 619 542 428 173 054 003	-1.409 -1.363 -1.209 843 919 573 573 182 026 026	-1.168 -1.160 -1.068 982 837 892 -1.002 380 268 083	980 -1.010 955 877 760 835 922 577 358 196	817 876 848 778 762 843 847 448 279		104 105 106 107 108 109 110 111	3.0 10.0 25.0 41.0 52.5 62.5 72.5 85.1 94.6	.595 .342 .133 .020 010 009 .053 .111 .156	.554 .317 .115 .016 036 015 .044 .117 .161	.531 .298 .094 035 073 051 .012 .172 .210	.514 .284 .077 062 108 090 024 .049	.508 .282 .073 077 134 118 047 .036	
D34 35 36 37 38 39 40 41 42 43	2.0 15.0 27.5 40.0 50.0 59.0 67.5 77.5 87.5 94.2	-1.896 928 686 506 513 415 278 143 036	-1.447 -1.306 -1.229 -1.123 888 348 197 115 058 089	-1.189 -1.125 -1.116 -1.064 -1.037 537 298 248 241 234	996 992 -1.002 954 937 818 597 375 328	829 879 903 923 898 825 872 808 480 365		113 114 115 116 117 118 119 120 121	3.0 10.0 25.0 41.0 52.5 62.5 72.5 87.4 94.2	.603 .359 .140 006 .010 .067 .130	.554 .327 .113 036 013 .056 .130	.526 .302 .083 093 064 .009 .082	.501 .281 .058 126 107 024 .052	.486 .271 .045 	
£44 45 46 47 48 49 50 51 52 53	2.0 6.0 15.0 27.5 40.0 50.0 59.0 67.5 77.5 88.5 95.5	-1.716 -1.457992648552450335221104 .024	-1.515 -1.450 -1.346 -1.249 905 596 412 252 104 .067	-1.232 -1.207 -1.144 -1.061 904 648 560 482 382 229 148	-1.028 -1.044 -1.003 936 845 623 540 491 444 382	874 907 894 895 853 786 671 594 539 488 454	-0.730 779 786 824 869 834 794 682 518	122 123 124 125 126 127 128 129 130 131	3.0 10.0 25.0 41.0 52.5 62.5 72.5 78.0 85.3 94.1	.610 .330 .146 .034 .010 005 .037 .061 .117 .137	.570 .332 .121 .006 014 026 .027 .069 .131	.533 .286 .084 039 066 087 032 .009 .068	.510 .251 .058 077 110 141 087 057 .005	.493 .243 .045 097 129 172 108 078 .003 010	044 .046 .036 110 129 184 113 078 .024
F55 56 57 58 59 60 61 62 63	2.0 6.9 15.0 27.5 49.0 50.0 59.0 67.5 86.5 94.6	-1.767 -1.615 966 626 521 409 295 175	-1.523 -1.452 -1.308 -1.158 711 540 383 262	-1.242 -1.208 -1.085 996 647 535 465 409	-1.029 -1.045 -1.005 967 889 742 474 387	867 909 903 925 902 880 791 540	712 779 788 829 877 901 909 891	132 133 134 135 136 137 138 139 140	3.0 10.0 25.0 41.0 52.5 62.5 72.5 83.4 94.0	.613 .356 .139 .023 020 022 007 007	.567 .324 .115 006 052 047 025 050	.526 .285 .075 059 115 116 099 169	.499 .261 .048 098 165 170 150 251 220	.481 .247 .035 116 191 189 150 287 273	084 .039 .026 122 204 198 136 295 267
G65 66 67 68 69 70 71 72 73 74	2.0 6.0 15.0 27.5 40.0 50.0 59.0 67.5 77.5 87.2 96.8	-1.542 -1.387 972 610 455 346 231 130 036 	-1.489 -1.366 -1.264 839 583 438 243 145 	-1.251 -1.227 -1.097 -1.026 701 560 376 270 236 	-1.031 -1.050 954 889 702 584 502 427 355 	863 908 863 804 705 581 522 500 474 	690 772 785 808 824 812 802 758 	141 142 143 144 145 146 147 148 149	3.0 10.0 25.0 41.0 52.5 62.5 72.5 84.0 92.0	.603 .330 .120 006 042 033 026 052 043	.564 .297 .085 055 100 052 086 111 026	.520 .252 .036 120 176 165 171 186 120	.491 .223 .003 170 241 223 230 272 155	.472 .209 008 191 281 276 452 272	194 .009 017 198 285 299 260 472 374
H76 77 78 79 80 81 82 83 84 85	27.5 40.0 50.0	-1.585 -1.196 672 486 385 287 185 096 .024	886 836 692 557 448 373 312 254 162 162	921 881 717 570 482 414 355 302 194 157	849 839 688 511 435 395 361 319 278 278	828 798 737 461 418 393 370 355 339	695 770 798 768 772 735 695 644 649 627	150 151 152 153 154 155 156 157	3.0 10.0 25.0 41.0 52.5 62.5 72.5 84.9	.539 .252 .043 052 068 042 029	.490 .210 017 133 152 121 116 075	.452 .169 073 203 219 173 158 102	.419 .138 123 297 349 279 236 184	.403 .129 135 328 435 433 366 407	167 .036 135 329 437 464 397 522

TABLE 37

 $\left[\Lambda = 30^{\circ}, \, \delta_{a_n} = 5.0^{\circ}, \, \alpha = -2^{\circ}\right]$

			ITPPRI	SURFAC	:P	 - CONFI	DENTI.	AL		LOWER	SURFAC	R ·		
\Box	Per-		0118		lumber	 		Per-			Mach N			
Tube		0.60	0.80	0.85	0.89		Tube	cent	0.60	0.80	0.85	0.89		Γ
A 1 2 5 6 7 8 9 10 11	2.0 6.0 15.0 27.5 40.0 50.0 67.5 77.5 87.5 96.0	0.316 .104 029 106 	0.349 .135002101	0.363 .151 .011 092	0.376 .165 .027 075		86 87 88 89 90 91 92 93 94	3.0 10.0 25.0 41.0 52.5 62.5 72.5 84.0 94.0	-0.389 233 	-0.408 271 	-0.396 278 	-0.359 258 	,	
B12 13 14 15 16 17 18 19 20 21 22	2.0 6.0 15.0 27.5 40.0 50.0 59.0 67.5 77.5 88.0 95.3	.300 .080 075 177 249 265 249 193 135 026	.334 .105 068 193 299 337 328 272 187 049	.345 .118 057 189 311 365 387 323 222 085	.355 .131 042 175 301 367 404 421 295 147		95 96 97 98 99 100 101 102 103	3.0 10.0 25.0 41.0 52.5 62.5 72.5 86.3 94.5	442 295 278 270 233 169 087	496 345 344 365 328 237 128 009	494 356 363 435 422 288 153 021	454 333 352 431 478 517 293 066		
C23 24 25 26 27 28 29 30 31 32 33	2.0 6.0 15.0 27.5 40.0 50.0 59.0 67.5 77.5 88.0 95.3	.303 .070 097 203 276 278 259 087 .020	.336 .089 103 238 353 372 334 105 .019	.345 .099 096 243 384 453 410 110 .018	.352 .109 084 232 380 476 534 186 .031		104 105 106 107 108 109 110 111 112	3.0 10.0 25.0 41.0 52.5 62.5 72.5 85.1 94.6	466 333 298 283 239 162 057 .053	563 417 390 390 321 207 072 078 149	576 437 433 507 394 221 077 .062 .153	556 408 437 533 603 521 106 .054 .147	,	
D34 35, 36 37 38 39 40 41 42 43	2.0 15.0 27.5 40.0 50.0 67.5 77.5 87.5 94.2	.259 105 206' 285 287 196 105 .033	.296 116 253 369 380 305 286 055 .031	.295 119 271 425 450 391 334 070 .037	.306 111 266 443 543 518 475 066 .066		113 114 115 116 117 118 119 120 121	3.0 10.0 25.0 41.0 52.5 62.5 72.5 87.4 94.2	468 319 298 243 143 032 .094 .134	612 420 406 	668 467 485 322 167 029 .115 .155	644 460 504 609 343 .005 .118 .162		
E 44 45 46 47 48 49 50 51 52 53 54	2.0 6.0 15.0 27.5 40.0 50.0 59.0 67.5 77.5 88.5 95.5	.338 .073 098 204 279 285 257 206 065 .145	.377 .095 102 240 355 365 332 256 074 .133	.387 .103 103 256 397 421 376 266 077 .140	.389 .108 103 266 449 555 529 280 064 .146		122 123 124 125 126 127 128 129 130 131	3.0 10.0 25.0 41.0 52.5 62.5 72.5 78.0 85.3 94.1	464 329 282 246 177 112 005 .048 .125	616 428 380 318 215 133 .001 .066 .146 .186	689 491 445 359 217 135 008 .075 .158 .203	727 525 564 561 447 067 .056 .111 .184		
F55 56 57 58 59 60 61 62 63 64	2.0 6.0 15.0 27.5 49.0 50.0 59.0 67.5 86.5 94.6	.313 .074 104 207 287 300 280 231 039	.354 .101 109 244 361 383 347 285 041	.363 .113 -:105 -:259 403 445 385 313 036	.369 .116 109 271 444 564 514 346 019		132 133 134 135 136 137 138 139 140	3.0 10.0 25.0 41.0 52.5 62.5 72.5 83.4 94.0	473 320 267 224 165 048 .083 .193	634 429 353 289 200 055 .093 .211	741 518 404 321 209 054 .102 .219 .176	733 576 577 529 237 .002 .139 .245		
G65 66 67 68 69 70 71 72 73 74	2.0 6.0 15.0 27.5 40.0 50.0 59.0 67.5 77.5 87.2 96.8	.303 .057 107 216 300 320 290 253 216 132 .117	.358 .090 109 253 378 413 369 319 282 048	.377 .195 105 263 415 477 424 373 334 010	.383 .114 093 272 441 592 531 492 263 .006 .139		141 142 143 144 145, 146 147 148 149	3.0 10.0 25.0 41.0 52.5 62.5 72.5 84.0 92.0	414 308 246 198 134 018 .107 .241	577 419 326 250 144 001 .123 .260 .203	690 506 368 267 145 .003 .000 .262 .214	756 663 567 325 089 .035 .156 .291		
H76 77 78 79 80 81 82 83 84 85	2.0 6.0 15.0 27.5 40.0 50.0 59.0 67.5 88.3 94.2	.239 .004 137 220 286 300 246 190 008	.284 .014 160 274 376 374 305 270 .032	.304 .023 169 297 447 426 364 338 .054	.323 .038 165 294 505 482 461 420 .072 .122		150 151 152 153 154 155 156 157	3.0 10.0 25.0 41.0 52.5 62.5 72.5 84.9	384 270 230 183 118 004 .103	535 360 295 214 109 .012 .117 .174	648 399 320 223 104 .037 .128 .186	813 638 413 178 083 .037 .143 .176		

TABLE 38

 $\Lambda = 30^{\circ}, \delta_{a_n} = 5.0^{\circ}, \alpha = 0^{\circ}$

_							- CONF		NTIA						<u> </u>	
-	<u> </u>		. UPPE	R_SURPA	Number			┨	<u> </u>	· 	 -	LOWER	SURPA			<u> </u>
Tube	Per- cent	2 (2	0.00			0 005	1 000	┨	Tube	Per- cent	- (2	1 - 0-	Mach I		T	
A 1 2 3 4 5 6 7 8 9 10 11	2.0 6.0 15.0 27.5 40.0 50.0 59.0 67.5 77.5 87.5 96.0	0.60 0.056 085 155 199 	0.80 0.106 049 137 203 	0.85 0.135 028 120 192 	0.89 0.165 .002 094 168 	0.925 0.012 012 083 157 	0.96		86 87 88 89 90 91 92 93 94	3.0 10.0 25.0 41.0 52.5 62.5 72.5 84.0 94.0	-0.60 -0.082 143 	-0.80 -0.073 157 	-0.068 	0.89 -0.053 153 	0.925 -0.022 125 	0.96
B12 13 14 15 16 17 18 19 20 21 22	2.0 6.0 15.0 27.5 40.0 50.0 59.0 67.5 77.5 88.0 95.3	-021 122 211 278 328 329 235 159 050	.077 095 210 309 401 429 408 326 219 059	.107 070 195 303 417 476 499 453 283 111	.140 040 169 276 395 468 483 550 446 201	.011 030 158 263 365 378 444 589 517 345	,		95 96 97 98 99 100 101 102 103	3.0 10.0 25.0 41.0 52.5 62.5 72.5 86.3 94.5	112 139 185 205 181 132 057 .026 .349	122 154 221 267 259 181 089 .014	125 153 239 306 306 218 106 002	116 141 239 335 364 329 152 022	083 106 210 318 362 420 361 -:185	
23 24 25 26 27 28 29 30 31 33	2.0 6.0 15.0 27.5 40.0 50.0 67.5 77.5 88.0 95.3	.006 142 244 311 361 345 311 105 .007	.061 124 262 369 468 419 125 .008	.095 100 249 371 503 566 560 129 .013	.133 066 219 344 562 628 403 039 .106	.021 055 208 325 458 511 588 547 379 037			104 105 106 107 108 109 110 111 112	3.0 10.0 25.0 41.0 52.5 62.5 72.5 85.1 94.6	108 153 196 215 191 130 030 .068 .164	140 193 253 286 253 165 043 .087	155 212 285 342 299 190 052 .053 .185	068 213 301 418 432 247 054 .079	120 178 273 406 482 501 471 026 164	
D34 35, 36 37 38 39 40 41 42 43	2.0 15.0 27.5 40.0 50.0 59.0 67.5 77.5 87.5 94.2	063 259 321 371 354 285 262 201 .018	017 293 396 495 478 389 386 065 .029	.016 285 410 574 609 520 493 052 .042	.063 255 383 543 634 557 318 054 082	.066 243 369 516 615 621 597 511 211			113 114 115 116 117 118 119 120 121	3.0 10.0 25.0 41.0 52.5 62.5 72.5 87.4 94.2	100 129 190 .619 171 120 .023 .114 .147	151 176 257 221 176 .029 .131 .167	183 207 304 258 214 .024 .137 .173	203 225 348 358 203 .018 .141	255 280 346 513 470 358 .066	
E 44 45 46 47 48 49 50 51 52 53	2.0 6.0 15.0 27.5 40.0 50.0 59.0 67.5 77.5 88.5 95.5	002 170 262 325 371 360 315 240 095 .126	.066 152 289 382 487 472 409 289 098 .132	.106 127 288 415 568 603 522 276 090 .122	.156 086 258 390 54 674 675 394 148 .027	.007 048 222 354 499 628 658 446 235 087 039	0.210 021 189 315 451 573 640 582 363 217 144		122 123 124 125 126 127 128 129 130 131	3.0 10.0 25.0 41.0 52.5 62.5 72.5 78.0 85.3 94.1	075 127 169 169 123 084 .024 .089 .153 .192	128 184 227 225 165 123 .058 .100 .179 .220	148 223 268 258 196 149 .054 .100 .186 .227	204 263 331 327 256 134 .040 .094 .176 .202	207 258 358 453 327 327 008 .078 .143 .150	-0.153 209 331 442 456 456 429 365 230
P55 56 57 58 59 60 61 62 63 64	2.0 6.0 15.0 27.5 49.0 50.0 59.0 67.5 86.5 94.6	043 176 273 331 384 377 340 276 052	.024 143 304 401 501 488 340 094	.066 127 301 426 573 610 548 324 037	.124 083 273 404 556 690 653 623 052	.166 044 237 367 514 645 658 627 128	.18i 022 206 330 469 592 654 636 317		132 133 134 135 136 137 138 139 140	3.0 10.0 25.0 41.0 52.5 62.5 72.5 83.4 94.0	074 112 151 146 105 052 .130 .224 .158	137 169 210 200 146 098 .143 .251	179 209 250 233 173 102 .149 .261	- 233 - 261 - 310 - 286 - 224 - 065 - 144 - 260 - 177	- 250 - 264 - 377 - 422 - 365 - 344 - 117 - 235 - 163	195 215 349 451 488 447 405 124 080
065 66 67 68 69 70 71 72 73 74 75	2.0 6.0 15.0 27.5 40.0 50.0 59.0 67.5 77.5 87.2 96.8	074 209 282 342 397 397 351 307 273 046 .100	.007 186 313 413 518 516 449 413 301 012	.056 159 309 436 577 623 559 541 193 .009	.117 111 279 416 560 560 537 530 281 043	170 063 239 379 507 459 462 398 268 164 118	.180 047 347 469 454 449 415 243 188		141 142 143 144 145 146 147 148 149	3.0 10.0 25.0 41.0 52.5 62.5 72.5 84.0 92.0	018 100 128 120 071 028 .156 .266 .186	.117 158 185 163 105 070 .172 .298 .225	114 196 218 188 130 057 .177 .273 .223	173 256 278 239 185 059 154 282 165	225 301 408 345 347 114 .114	180 260 406 481 488 386 373 136 .008
H76 77 78 79 80 81 82 83 84 85	2.0 6.0 15.0 27.5 40.0 50.0 59.0 67.5 88.3 94.2	102 232 276 314 358 348 291 252 003 .004	055 257 339 392 465 428 370 351 032 .107	020 242 358 430 586 515 488 321 .059 .120	.046 196 327 396 496 465 462 297 .003 .025	-118 -135 -280 -347 -417 -414 -385 -288 -099 -046	111 249 311 416 408 395 335 206 152	•	150 151 152 153 154 155 156 157	3.0 10.0 25.0 41.0 52.5 62.5 72.5 84.9	029 104 144 127 075 042 .145 .142	073 156 197 160 100 076 .160	115 189 234 180 121 .064 .166 .166	182 245 311 229 179 043 .146 .102	261 279 450 341 302 .044 .132 .068	245 265 458 488 477 425 333 043

TABLE 39

 $\Lambda = 30^{\circ}, \delta_{a_n} = 5.0^{\circ}, \alpha = 2^{\circ}$

			ישפלון	R SURPA	CR	<u> </u>	CONF	IDENTIA	\L <u></u>	·	LOWER	SURPAC	:R	•	
	Per-		ULLE		Number			╽┝─	Per-	r -	DOWISIT	Mach N		· · ·	
Tube	cent chord	0.60	0.80	0.85	0.89	0.925	0.96	Tube	cent	0.60	0.80	0.85	0.89	0.925	0.96
A 1 2 3 4 5 6 7 8 9 10 11	2.0 6.0 15.0 27.5 40.0 50.0 59.0 67.5 77.5 87.5 96.0	-0.297 309 294 297 	-0.231 284 292 322 	-0.168 243 262 299 	-0.107 195 221 262 	-0.049145178224		86 87 88 89 90 91 92 93 94	3.0 10.0 25.0 41.0 52.5 62.5 72.5 84.0 94.0	0.174	0,190	0.187	0.185	0.192	0.90
B12 13 14 15 16 17 18 19 20 21 22	2.0 6.0 15.0 27.5 40.0 50.0 67.5 77.5 88.0 95.3	360 367 367 390 411 400 348 271 185 070	292 351 385 447 530 546 516 400 253 090	- 221 - 306 - 352 - 425 - 525 - 588 - 604 - 624 - 374 - 144	151 252 308 384 475 547 557 636 554 282	193 200 261 338 426 441 475 648 575 425		95 96 97 98 99 100 101 102 103	3.0 10.0 25.0 41.0 52.5 62.5 72.5 86.3 94.5	,163 ,017 -,086 -,133 -,126 -,089 -,022 ,051	.164 .019 101 170 172 125 049	-152 -012 -079 -196 -209 -154 -065 -024	.143 .008 124 225 267 201 101 005	.147 .019 118 224 339 249 116	•
C23 24 25 26 27 28 29 30 31 32 33	2.0 6.0 15.0 27.5 40.0 50.0 67.5 77.5 88.0 95.3	411 402 411 428 450 420 371 135 010	- 340 - 459 - 529 - 516 - 599 - 544 - 160 - 004 - 097	256 346 +.424 507 627 677 717 219 001	174 285 373 467 574 650 739 559 187 .086	105 227 321 418 528 591 637 588 529 113		104 105 106 107 108 109 110 111	3.0 10.0 25.0 41.0 52.5 62.5 72.5 85.1 94.6	.177 .021 105 141 132 086 005	.163 .005 122 189 177 118 013 .094	.141 012 146 226 210 146 028 .091 .191	.121 026 170 280 269 195 055 .076 .181	.118 041 175 319 399 196 .018 .129	
D34 35 36 37 38 39 40 41 42 43	2.0 15.0 27.5 40.0 50.0 59.0 67.5 77.5 87.5 94.2	503 437 443 463 427 331 321 116 .001	429 515 577 671 604 538 302 112 .019	334 476 571 698 665 616 569 259 018	237 419 523 642 665 620 603 415 261 112	156 365 472 586 678 659 656 602 379 192		113 114 115 116 117 118 119 120	3.0 10.0 25.0 41.0 52.5 62.5 72.5 87.4 94.2	.197 .046 080 	.170 .022 119 151 095 .032 .148 .175	.135 003 151 180 126 .030 .145	.100 032 195 213 179 .022 .128 .138	.080 045 224 	
E 44 45 46 47 48 49 50 51 52 53 54	2.0 6.0 15.0 27.5 40.0 50.0 59.0 67.5 77.5 88.5 95.5	493 466 446 452 466 432 367 268 122 104 107	418 486 530 582 658 608 495 396 119 .114	316 432 504 598 710 794 703 351 145 .022	199 345 433 542 655 736 621 391 244 164 121	088 258 363 480 591 692 657 431 299 239 208	-0.035 207 313 433 539 641 677 566 397 327 298	122 123 124 125 126 127 128 129 130 131	3.0 10.0 25.0 41.0 52.5 62.5 72.5 78.0 85.3 94.1	.231 .048 053 091 063 032 .010 .110 .177 .202	.196 .022 093 131 092 050 017 .146 .201	161 015 124 163 118 075 030 .138 .195 .216	.120 045 172 227 176 132 086 .101 .153 .147	.078 089 222 323 260 210 026 .068 .129 .114	0.087 068 212 365 402 353 315 188 .034 .080
59 60 61 62 63	2.0 6.0 15.0 27.5 49.0 50.0 59.0 67.5 86.5 94.6	548 482 462 462 480 449 399 310 059	478 502 559 600 667 610 560 468 041	373 447 530 621 739 743 723 563 034	238 352 456 564 678 752 712 683 092	115 258 382 500 613 717 686 684 264	059 206 330 449 560 665 707 688 466	132 133 134 135 136 137 138 139 140	3.0 10.0 25.0 41.0 52.5 62.5 72.5 83.4 94.0	.236 071 038 069 046 .011 .149 .242	.201 .039 074 078 071 019 .194 .272 .188	.159 .008 107 140 096 .048 .192 .271	.109 037 161 206 156 112 .172 .248	.053 084 221 297 236 194 .151 .234 .094	.054 083 222 371 352 205 .135 .064
665 667 68 69 70 71 72 73 74 75	2.0 6.0 15.0 27.5 40.0 50.0 59.0 67.5 77.5 87.2 96.8	598 526 469 466 489 465 406 366 231 043	531 577 566 622 671 618 579 536 210 016	- 413 - 523 - 543 - 726 - 669 - 664 - 6038 - 088	266 415 476 589 565 557 509 397 298 182 131	121 299 388 511 580 581 560 505 409 201 142	050 238 337 571 612 595 582 514 353 242	141 142 143 144 145 146 147 148 149	3.0 10.0 25.0 41.0 52.5 62.5 72.5 84.0 92.0	.279 .081 019 050 016 .020 .183 .278 .193	.250 .051 053 078 031 .003 .226 .313 .223	.122 .019 086 112 060 034 .212 .299 .190	.151 035 147 182 126 093 .170 .252 .098	.083 095 214 251 188 133 .142 .244	.061 116 259 388 350 330 141 .068 .028
79 80 81 82 83 84	2.0 6.0 15.0 27.5 40.0 50.0 59.0 67.5 88.3 94.2	558 503 426 410 427 402 343 306 019	599 659 567 509 554 500 463 287 .038	492 616 614 584 627 607 478 187 .020	338 498 537 473 532 512 363 246 084	183 374 451 408 468 434 327 268 160 146	094 294 384 438 434 318 318 244	150 151 152 153 154 155 156 157	3.0 10.0 25.0 41.0 52.5 62.5 72.5 84.9	,245 ,046 065 081 039 .003 .159 .136	.230 .021 102 109 052 031 .188 .160	.190 015 144 180 067 177 .127	.128 069 221 215 147 141 .129 .038	.064 110 288 303 239 194 .093 023	.025 125 342 468 442 371 199 096
	1	,		.003		NFIDEN	لــــــــا				L,NA(مرمره	w · .		لـــــا

TABLE 40

 $\left[\Lambda = 30^{\circ}, \, \delta_{\mathbf{a}_{n}} = 5.0^{\circ}, \, \alpha = 4^{\circ}\right]$

			प्रक्षत्ता	SURPAC	E		CONFIDE	NTIAL	.—		LOWER	SURPACI	В		1
	Per-		OTTEN	Mach N					Per-			Mach N			
Тире	cent chord	0.60	0.80	0.85	0.89	0.925	0.96	Tube	cent	0.60	0.80	0.85	0.89	0.925	0.96
A 1 2 3 4 5 6 7 8 9 10 11	2.0 6.0 15.0 27.5 40.0 50.0 59.0 67.5 77.5 87.5 96.0	-0.741 570 431 399 	-0.631 541 439 437 	-0.535 484 401 403 	-0.441 424 361 362 	-0.353 356 313 315 		86 87 88 89 90 91 92 93 94	3.0 10.0 25.0 41.0 52.5 62.5 72.5 84.0 94.0	0.384	0.383	0.376	0.369	0.375	
B12 13 14 15 16 17 18 19 20 21 22	2.0 6.0 15.0 27.5 40.0 59.0 €7.5 77.5 88.0 95.3	853 652 519 490 486 388 302 205 080	759 647 552 573 608 576 678 498 329 136	633 586 507 543 609 590 647 795 510 212	519 523 456 494 575 570 590 772 677 385	415 450 395 441 522 527 526 711 645 502		95 96 97 98 99 100 101 102 103	3.0 10.0 25.0 41.0 52.5 62.5 72.5 86.3 94.5	.379 .161 .011 063 070 051 .008 .160	.363 .155 .000 091 105 067 023 .060	.348 .146 012 110 135 103 039 .041	.335 .140 024 136 179 146 095 005	.334 .145 021 144 212 206 134 045	
C23 24 25 26 27 28 29 30 31 32 33	2.0 6.0 15.0 27.5 40.0 50.0 67.5 77.5 88.0 95.3	942 716 575 535 530 473 396 163 029 .061	818 744 645 677 736 746 707 174 021	657 674 588 648 731 745 745 507 035	530 593 526 596 677 731 741 677 462 026	419 506 458 537 611 680 729 660 622 247		104 105 106 107 108 109 110 111 112	3.0 10.0 25.0 41.0 52.5 62.5 72.5 85.1 94.6	.399 .171 .008 071 080 046 .020 .088 .165	.367 .151 016 106 114 072 008 .110	.344 .134 036 137 149 103 012 .086 .172	.322 .117 061 181 196 155 056 054 .143	.312 .115 069 200 279 238 188 .019 .106	
D34 35 36 37 38 39 40 41 42 43	2.0 15.0 27.5 40.0 50.0 59.0 67.5 77.5 87.5 94.2	-1.062 606 555 543 425 385 241 141 011	916 740 763 815 673 263 120 .015	721 668 740 803 751 682 589 361 151	567 594 680 743 701 654 595 466 352 279	442 519 611 689 752 725 725 670 543 379		113 114 115 116 117 118 119 120 121	3.0 10.0 25.0 41.0 52.5 62.5 72.5 87.4 94.2	.418 .197 .021 064 029 .031 .133 .144	.377 .180 008 092 045 .047 .158 .181	.343 .145 039 131 080 .022 .136 .138	.306 .133 071 195 140 051 .082 .047	.284 .101 123 280 218 069 .058 .028	
E 44 45 46 47 48 49 50 51 52 53 54	2.0 6.0 15.0 27.5 40.0 50.0 59.0 67.5 77.5 88.5 95.5	-1.117 -1.001 613 559 543 475 392 280 140 .031	-1.009 -1.031 823 859 859 804 433 283 117 .065	771 866 864 774 807 774 680 459 243 105	584 716 665 702 737 708 662 511 348 274 234	449 600 577 631 712 694 683 613 441 364 339	-0.336 496 494 565 659 659 651 615 515 469	122 123 124 125 126 127 128 129 130	3.0 10.0 25.0 41.0 52.5 62.5 72.5 78.0 85.3 94.1	.443 .203 .044 023 016 .001 .050 .068 .184 .194	.410 .186 .022 047 030 .000, .041 .103 .222 .233	.372 .153 013 088 071 041 001 .037 .192 .176	.329 .114 059 149 131 102 061 043 .154 .112	.302 .091 099 206 183 153 112 072 .134 .086	0.278 .082 111 268 273 223 176 .026 .110
F55 56 57 58 59 60 61 62 63 64	2.0 6.0 15.0 27.5 49.0 50.0 59.0 67.5 86.5 94.6		-1.055 -1.075 874 826 879 800 432 305 025	813 888 824 794 881 827 781 360 139	626 724 699 719 775 775 724 456 276	485 600 598 648 726 705 701 623 416	369 490 507 577 675 721 703 700	132 133 134 135 136 137 138 139 140	3.0 10.0 25.0 41.0 52.5 62.5 72.5 83.4 94.0	.450 .219 .057 006 003 .047 .111 .244	.417 .198 .038 026 016 .041 .182 .276	.372 .162 001 073 062 005 .148 .250	.321 .117 052 139 127 065 .096 .222 .058	.286 .087 090 098 190 121 052 .210	.261 .061 120 267 276 211 .058 .211
G65 66 67 68 69 70 71 72 73 74	2.0 6.0 15.0 27.5 40.0 50.0 59.0 67.5 77.5 87.2 96.8	-1.266 857 642 573 555 498 409 316 222 036 058	-1.112 -1.137 -1.020 895 861 765 389 285 217 009	-,830 -,929 -,897 -,865 -,799 -,759 -,536 -,394 -,269 -,121 -,053	635 750 755 738 698 631 502 427 363 249	484 613 640 667 628 603 521 457 400 302 305	351 491 536 616 651 661 659 637 586 421 425	141 142 143 144 145 146 147 148 149	3.0 10.0 25.0 41.0 52.5 62.5 72.5 84.0 92.0	.479 .223 .068 .003 .017 .066 .087 .273	.452 .206 .054 008 .018 .074 .112 .322 .214	.404 .163 .008 059 032 .023 .055 .282 .140	.348 .111 047 126 094 042 005	.303 .070 097 193 156 097 016 .231 .038	.259 .032 142 287 235 157 .077 .242 .036
H76 77 78 79 80 81 82 83 84 85	2.0 6.0 15.0 27.5 40.0 50.0 67.5 88.3 94.2	-1.116819546479471430325215016	-1.170 -1.165 997 744 371 406 326 214 .004	889 954 946 840 736 462 287 193 049 021	674 783 812 596 642 461 348 288 166 143	515 649 695 526 590 468 381 381 253 238	373 524 578 499 581 568 518 470 413 404	150 151 152 153 154 155 156 157	3.0 10.0 25.0 41.0 52.5 62.5 72.5 84.9	.430 .164 .003 .043 023 .026 .040	.412 .148 022 068 030 .012 .146 .139	.362 .103 080 126 082 042 .105 .057	.308 .106 146 205 150 112 .054 021	.268 .023 -193 -309 -242 -200 .009 094	.208 001 223 386 365 317 115 1143

TABLE 41

 $\Lambda = 30^{\circ}, \, \delta_{a_n} = 5.0^{\circ}, \, \alpha = 7^{\circ}$

_			. Interes	R SURFA			- CONF	DENTIA	۱L —		[Umate	SURFAC	R		
	Per-		UPPE		Number			-	Per-		DOWER	Mach N			
Tube	cent	0.60	0.80	r	,	0.005	0.06	Tube	cent	0.60	0.90	_			
A 1 2 3 4 5 6 7 8 9 10 11	2.0 6.0 15.0 27.5 40.0 50.0 67.5 77.5 87.5 96.0	0.60 -1.999909664551	0.80 -1.378 -1.230 693 634 	0.85 -1.127 -1.007 632 582 	0.89 -0.957 876 567 532 	0.925 -0.811 765 500 473 	0.96	86 87 88 89 90 91 92 93	3.0 10.0 25.0 41.0 52.5 62.5 72.5 84.0 94.0	0.60 0.592 .164 	0.80 0.470 .173 	0.85	0.89 0.652 	0.925	0.96
B12 13 14 15 16 17 18 19 20 21 22	2.0 6.0 15.0 27.5 40.0 50.0 67.5 77.5 88.0 95.3	-1.976 -1.122 751 644 591 525 324 3243 106	-1.423 -1.296 952 753 800 709 776 606 401 179	-1.158 -1.117 -1.045 699 766 735 757 931 689 323	981 982 869 648 701 697 689 868 810 566	830 858 730 582 632 640 621 796 747 628	•	95 96 97 98 99 100 101 102 103	3.0 10.0 25.0 41.0 52.5 62.5 72.5 86.3 94.5	.582 .327 .134 .028 .007 .007 .053 .104	.553 .409 .123 .010 021 016 .031 .091	.403 .300 .108 011 052 047 003 .056	.525 .294 .100 026 078 074 030 .024	.523 .297 .104 029 097 096 034 .010	
C23 24 25 26 27 28 29 30 31 33	2.0 6.0 15.0 27.5 40.0 50.0 59.0 67.5 77.5 88.0 95.3	-2.119 -1.338 828 693 624 534 434 174 054	-1.431 -1.390 -1.236 831 916 933 698 112 050	-1.152 -1.158 -1.070 -1.004 835 907 972 360 299 172	962 998 953 877 758 841 910 674 385 251	804 867 842 776 725 760 839 858 461 321		104 105 106 107 108 109 110 111	3.0 10.0 25.0 41.0 52.5 62.5 72.5 85.1 94.6	.594 .341 .023 007 .007 .056 .104 .160	.551 .311 .110 010 042 021 .036 .094 .143	.524 .288 .085 044 083 063 003 .058	.508 .275 .069 053 118 101 037 .026	.500 .272 .066 088 147 133 061 .013	
D34 35, 36 37 38 39 40 41 42 43	2.0 15.0 27.5 40.0 50.0 59.0 67.5 77.5 87.5 94.2	-1.926 937 695 620 524 406 281 150 037	-1.460 -1.331 -1.251 -1.152 -1.018 401 221 121 054 026	-1.170 -1.131 -1.123 -1.070 -1.048 608 326 274 269 260	972 989 -1.007 963 948 863 771 448 348	810 870 900 929 908 845 883 861 603 391		113 114 115 116 117 118 119 120 121	3.0 10.0 25.0 41.0 52.5 62.5 72.5 87.4 94.2	.604 .361 .145 .001 .016 .058 .137 .128	.552 .323 .120 035 015 .062 .135 .121	.517 .293 .076 090 070 001 .079	.492 .312 .057 135 113 028 .056	.477 .260 .036 250 233 057 .032 013	
E 44 45 46 47 48 49 50 51 52 53	2.0 6.0 15.0 27.5 40.0 50.0 67.5 77.5 88.5 95.5	-1.861 -1.668 -1.052 693 607 518 400 278 138 013	-1.481 -1.443 -1.348 -1.254 -1.145 738 526 332 133 .062 .080	-1.199 -1.208 -1.134 -1.083 -1.032 800 659 565 433 259 139	976 -1.030 998 947 915 745 627 567 500 441	817 885 880 897 873 853 795 714 626 557 514	-0.653 738 753 800 859 900 886 853 820 689 552	122 123 124 125 126 127 128 129 130	3.0 10.0 25.0 41.0 52.5 62.5 72.5 78.0 85.3 94.1	.625 .371 .163 .046 .040 .081 .111 .162 .163	.574 .335 .134 .029 .016 .017 .078 .125 .183	.538 .288 .095 018 033 037 .026 .081 .134 .147	.503 .262 .059 065 086 096 035 .010 .087	.484 .242 .039 095 118 131 064 008 091	0.443 .212 .009 138 142 175 098 029 .100
F55 56 57 58 59 60 61 62 63 64	2.0 6.9 15.0 27.5 49.0 50.0 59.0 67.5 86.5 94.6	-1.742 -1.668 -1.153 725 593 507 407 302 072	-1.526 -1.460 -1.328 -1.254 900 686 513 383 172	-1.237 -1.211 -1.128 -1.056 808 635 547 485 364	-1.011 -1.033 992 917 817 631 538 492 436	885 885 884 870 843 789 694 542	650 736 752 801 786 905 901 876	132 133 134 135 136 137 138 139 140	3.0 10.0 25.0 41.0 52.5 62.5 72.5 83.4 94.0	.628 .379 .176 .077 .067 .081 .163 .239	.574 .338 .141 .042 .021 .063 .167 .248	.533 .298 .099 011 034 .007 .118 .201	.494 .261 .059 064 094 047 .088 .178 023	.468 .240 .035 098 132 074 .075 .183 013	.421 .201 .002 142 197 120 .082 .189
G65 66 67 68 69 70 71 72 73 74	2.0 6.0 15.0 27.5 40.0 50.0 59.0 67.5 77.5 87.2 96.8	-1.505 -1.460 -1.171 819 596 478 380 289 199 085 020	-1.553 -1.450 -1.330 -1.075 696 559 467 383 278 155 133	-1.264 -1.238 -1.130 -1.061 845 687 554 386 302 200	-1.029 -1.054 -1.017 945 850 728 506 357 261 300	- 840 - 894 - 890 - 847 - 842 - 783 - 7660 - 5469 - 394	618 728 750 803 861 903 923 931 918 707 735	141 142 143 144 145 146 147 148 149	3.0 10.0 25.0 41.0 52.5 62.5 72.5 84.0 92.0	.628 .369 .173 .074 .061 .099 .140 .290	.582 .326 .135 .028 .018 .071 .101 .273	.540 .283 .088 025 036 .010 .052 .249	.499 .243 .046 075 086 034 .013 .225 .020	.471 .216 .018 111 119 066 002 .220	.415 .166 027 161 159 102 .020 .214 .021
H76 77 78 79 80 81 82 83 84 85	2.0 6.0 15.0 27.5 40.0 50.0 59.0 67.5 88.3 94.2	-1.330 -1.201 886 593 461 371 284 225 095 073	963 906 790 556 558 473 405 349 238 216	-1.079 -1.028 794 522 550 491 438 379 283 261	979 928 832 516 516 476 449 422 353 338	858 890 827 634 598 515 478 450 405 401	644 729 776 672 879 917 931 875 -1.004 882	150 151 152 153 154 155 156 157	3.0 10.0 25.0 41.0 52.5 62.5 72.5 84.9	.559 .280 .077 003 005 .034 .061	.517 .238 .022 069 071 025 .014 077	.480 .200 025 -120 -114 -060 -010 -107	.442 .162 074 188 176 114 042 157	.416 .143 102 251 237 172 074 184	.369 .110 130 296 325 251 119 172

TABLE 42

 $\left[\Lambda = 30^{\circ}, \, \delta_{\mathbf{a_n}} = 10.0^{\circ}, \, \alpha = -2^{\circ}\right]$

\sqcap			UPPER	SURPAG	E	 CONFIL	ENTIA	\L		LOWER	SURFAC	В	
	Per-				umber			Per-	-		Mach N	umber	
Tube	cent chord	0.60	0.80	0.85	0.89		Tube	cent	0.60	0.80	0.85	0.89	<u> </u>
A 1 2 3 4 5 6 7 8 9 10 11	2.0 6.0 15.0 27.5 40.0 50.0 59.0 67.5 77.5 87.5 96.0	0.304 .099 033 109 	0.346 .133 006 101	0.362 .151 .010 089	0.376 .169 .028 072 		86 87 88 89 90 91 92 93	3.0 10.0 25.0 41.0 52.5 62.5 72.5 84.0 94.0	-0.380 	-0.397 260 	-0.387 268 	-0.352 249 	
B12 13 14 15 16 17 18 19 20 21 22	2.0. 6.0 15.0 27.5 40.0 50.0 67.5 77.5 88.0 95.3	.294 .073 085 181 251 273 260 214 159 036	.331 .102 068 189 286 327 351 290 217 060	.345 .118 055 183 289 337 422 342 252 080	.357 .133 039 168 277 317 416 467 321 127		95 96 98 99 100 101 102 103	3.0 10.0 25.0 41.0 52.5 62.5 72.5 86.3 94.5	432 294 274 268 231 168 086 .007	480 339 338 358 323 231 126 009	483 349 360 426 414 282 149 021	446 300 349 426 474 504 276 063	
C23 24 25 26 27 28 29 30 31 32 33	2.0 6.0 15.0 27.5 40.0 50.0 67.5 77.5 88.0 95.3	.295 .061 103 210 286 298 265 098 .015	.331 .087 103 240 354 369 344 120 .018	.342 .101 093 239 379 456 410 121 .018	.354 .115 078 225 362 471 537 204 .028		104 105 106 107 108 109 110 111 112	3.0 10.0 25.0 41.0 52.5 62.5 72.5 85.1 94.6	453 321 293 280 237 159 056 .054 .140	546 409 382 381 315 204 069 038	569 437 428 494 390 219 077 .060	546 407 432 528 597 496 100 .057 .149	
D34 35, 36 37 38 39 40 41 42 43	2.0 15.0 27.5 40.0 50.0 59.0 67.5 77.5 87.5 94.2	.246 115 218 294 297 257 210 106 .024	.288 121 258 375 386 301 288 057 .029	.302 118 276 428 455 390 355 063 .037	.311 107 262 438 542 529 485 081 .068		113 114 115 116 117 118 119 120 121	3.0 10.0 25.0 41.0 52.5 62.5 72.5 87.4 94.2	452 308 291 	593 407 397 288 160 029 150	658 460 478 315 158 023 .113 .158	640 455 501 578 320 .018 .127 .168	
E44 45 46 47 48 49 50 51 52 53	2.0 6.0 15.0 27.5 40.0 50.0 67.5 77.5 88.5 95.5	.304 .042 124 231 310 317 291 238 179 .129	.372 .091 110 250 366 384 346 290 139 111	.392 .109 102 261 402 434 385 287 058 .113	.396 .116 098 262 434 542 492 395 052 .123		122 123 124 125 126 127 128 129 130 131	3.0 10.0 25.0 41.0 52.5 62.5 72.5 78.0 85.3 94.1	406 314 275 229 164 081 .007 .064 .145	602 420 360 296 191 103 .021 .091 .171 .204	705 505 431 327 199 104 .035 .102 .179 .211	747 530 566 545 298 031 .073 .131 .207 .231	
F55 56 57 58 59 60 61 62 63 64	2.0 6.0 15.0 27.5 49.0 50.0 59.0 67.5 86.5 94.6	.261 .035 137 249 336 356 348 321 129	.340 .094 117 262 386 424 405 370 124	.371 .114 105 262 417 468 440 394 126	.373 .123 101 266 441 560 537 423 129		132 133 134 135 136 137 138 139 140	3.0 10.0 25.0 41.0 52.5 62.5 72.5 83.4 94.0	430 290 242 192 123 .012 .163 .283 .188	613 410 328 250 145 .012 .182 .301	751 521 375 275 152 .017 .187 .301	753 592 576 448 092 .056 .221 .329 .223	
G65 66 67 68 69 70 71 72 73 74	2.0 6.0 15.0 27.5 40.0 50.0 67.5 77.5 87.2 96.8	239 - 254 - 267 - 361 - 369 - 3546 - 3545 - 3555 - 368	.339 .072 126 280 421 471 434 387 363 234	.371 .101 110 276 441 549 512 457 425 113	.387 .118 269 439 581 606 545 496 071		141 142 143 144 145 146 147 148 149	3.0 10.0 25.0 41.0 52.5 62.5 72.5 84.0 92.0	343 258 206 152 090 .076 .191 .314 .203	617 383 287 199 081 .062 .202 .319	658 478 324 212 084 .040 .207 .309 .227	771 665 465 173 066 .083 .227 .339 .232	
H76 77 78 79 80 81 82 83 84 85	2.0 6.0 15.0 27.5 40.0 50.0 59.0 67.5 88.3 94.2	.170 051 170 271 334 351 310 261 104	011 181 320 418 424 356 319 063	.302 .012 179 315 499 519 455 428 .023 .108	.326 .042 160 275 503 495 472 457 006		150 151 152 153 154 155 156 157	3.0 10.0 25.0 41.0 52.5 62.5 72.5 84.9	311 235 215 150 091 .058 .178	470 335 262 178 072 .064 .193 .162	591 380 295 186 063 069 195 183	784 555 310 192 068 .066 .191 .128	

TABLE 4

$[\Lambda = 30^{\circ}, \delta_{\mathbf{a}_{\mathbf{n}}} = 10.0^{\circ}, \alpha = 0^{\circ}]$

Γ			שמפון	SURPAC	:R		CONFI	DENTIA	·L	÷	LOWER	SURPAC	В		
\vdash	Per-		UFFE	Mach N				 -	Per-	Γ		Mach N			
Tube	cent chord	0.60	0.80	0.85	0.89	0.925	0.96	Tube	cent	0.60	0.80	0.85	0.89	0.925	0.96
A 1 2 3 4 5 6 7 8 9 10 11	2.0 6.0 15.0 27.5 40.0 50.0 59.0 67.5 77.5 87.6 96.0	0.031 094 161 203 	0.102 055 141 205 	0.129 031 124 194 	0.160 003 097 171	0.194 .034 062 135 	0.50	86 87 88 89 90 91 92 93 94	3.0 10.0 25.0 41.0 52.5 62.5 72.5 84.0 94.0	-0.071 134 	-0.068 150 	-0.056 	-0.045 141 	-0.020 116 	0.90
B12 13 14 15 16 17 18 19 20 21 22	2.0 6.0 15.0 27.5 40.0 50.0 59.0 67.5 77.5 88.0 95.3	.006 134 221 283 330 334 316 254 190 049	.073 098 213 307 386 417 455 353 250 077	.102 076 201 302 393 420 525 510 309 108	.135 045 170 276 381 393 482 618 449 187	.172 009 136 242 346 359 425 565 489 305	:	95 96 97 98 99 100 101 102	3.0 10.0 25.0 41.0 52.5 62.5 72.5 86.3 94.5	096 129 177 200 179 131 060 .028	114 147 218 262 246 180 091 .003	111 145 229 296 294 211 106 011	105 131 232 326 356 305 149 034	080 103 209 315 360 407 334 161	
23 24 25 26 27 28 29 30 31 32 33	2.0 6.0 15.0 27.5 40.0 50.0 59.0 67.5 77.5 88.0 95.3	014 157 254 320 371 356 317 111 .003	.056 127 264 373 474 427 139 .004	.087 102 250 369 490 571 560 140 .015	.128 067 220 344 466 525 597 513 035 .118	.161 031 184 305 434 493 567 520 348 .052	,	104 105 106 107 108 109 110	3.0 10.0 25.0 41.0 52.5 62.5 72.5 85.1 94.6	094 143 189 211 186 131 026 .067 .163	135 188 248 283 249 166 044 .074	141 200 275 330 291 190 050 .078	 144 205 295 409 416 238 059	120 179 270 404 478 510 284 .016	,
D34 35 36 37 38 39 40 41 42 43	2.0 15.0 27.5 40.0 50.0 59.0 67.5 77.5 87.5 94.2	.073 274 334 384 368 303 263 110 .006	026 298 406 507 484 396 400 074 .022	.012 289 412 576 523 545 521 055 .044 .117	.055 255 383 538 620 554 550 325 070	.092 219 348 493 595 622 580 496 143 053		113 114 115 116 117 118 119 120 121	3.0 10.0 25.0 41.0 52.5 62.5 72.5 87.4 94.2	080 114 180 166 114 .000 .111 .145	143 170 250 215 164 .014 .131 .167	168 195 291 245 202 .027 .141 .173	196 219 343 341 205 .019 .135	177 198 329 479 449 237 .105	
E44 45 46 47 48 49 50 51 52 53 54	2.0 6.0 15.0 27.5 40.0 50.0 67.5 77.5 88.5 95.5	045 207 296 358 409 397 353 306 094 097	.052 162 301 408 507 493 432 395 094 .075	.108 123 287 416 568 587 527 462 068 .105 .118	.162 079 254 390 542 672 617 588 122 006	.197 044 220 352 497 625 602 570 206 094 061	0.218 015 183 311 568 615 576 315 204 146	122 123 124 125 126 127 128 129 130 131	3.0 10.0 25.0 41.0 52.5 62.5 72.5 78.0 85.3 94.1	061 117 157 157 107 094 .050 .101 .173	120 174 218 206 145 101 .072 .120 .204 .231	165 216 256 237 174 113 .072 .128 .214	219 270 338 306 247 069 .059 .116 .201	215 258 370 440 381 270 .043 .106 .171 .162	-0.158 204 330 340 466 393 296 146
755 56 57 58 59 60 61 62 63 64	2.0 6.9 15.0 27.5 49.0 50.0 59.0 67.5 86.5 94.5	107 221 315 379 440 438 415 371 142	.011 170 316 423 535 549 492 424 132	.071 126 300 418 578 653 560 465 128	.132 077 268 401 556 691 707 656 171	.167 040 233 -:365 514 643 674 630 235	.185 015 200 324 465 589 642 534 338	132 133 134 135 136 137 138 139 140	3.0 10.0 25.0 41.0 52.5 62.5 72.5 83.4 94.0	051 095 132 119 069 013 .204 .317 .188	121 154 188 165 106 227 .227 .354 .211	174 197 225 193 132 .067 .235 .364 .214	247 267 301 255 194 .073 .230 .361	261 268 379 380 341 003 .202 .325 .180	204 217 349 444 431 395 293 .033
065 66 67 68 69 70 71 72 73 74	2.0 6.0 15.0 27.5 40.0 50.0 67.5 77.5 87.2 96.8	158 274 336 399 465 470 431 382 251	031 217 341 580 616 550 502 473 116 .092	- 166 - 154 - 159 - 1591 - 1596 - 1646 - 1646 - 1643	.122 106 274 413 560 637 599 583 483 207	.176 058 234 375 517 530 521 495 382 252 169	.190 036 204 340 475 555 546 534 482 363 233	141 142 143 144 145 146 147 148 149	3.0 10.0 25.0 41.0 52.5 62.5 72.5 84.0 92.0	.025 063 098 080 026 .015 .225 .336	039 124 146 109 054 .080 .253 .371 .240	087 166 178 132 079 .114 .257 .378 .241	169 245 247 189 140 .105 .230 .350	230 376 376 292 192 .075 .205 .324 .148	192 265 409 437 410 236 193 .109 .126
H76 77 78 79 80 81 82 83 84 85	2.0 6.0 15.0 27.5 40.0 50.0 67.5 88.3 94.2	190 297 319 377 415 413 360 311 107	122 303 377 476 539 508 448 423 017	260 368 434 620 601 574 480 .062 .066	047 194 327 355 496 469 471 356 120 099	.120 130 276 287 438 429 418 324 169 140	.152 094 238 241 397 389 371 300 210	150 151 152 153 154 155 158 157	3.0 10.0 25.0 41.0 52.5 62.5 72.5 84.9	.018 075 120 101 044 017 :205 .129	040 121 163 121 061 .008 .230 .165	090 163 199 140 085 062 .232 .140	176 233 279 197 150 .053 .171	257 267 393 279 228 .105 .201	268 272 456 485 437 272 178 040

TABLE 44

			UPPEF	SURPAC	E		-CONFIE 	ENTIA	L		LOWER	SURFACI	8		
	Per-			Mach N	umber			Tube	Per- cent			Mach Nu	mber		
Tube	cent chord	0.60	0.80	0.85	0.89	0.925	0.96	rube	chord	0.60	0.80	0.85	0.89	0.925	0.96
A 1 2 3 4 5 6 7 8 9 10 11	2.0 6.0 15.0 27.5 40.0 50.0 59.0 67.5 77.5 87.5 96.0	-0.318 317 297 295 		-0.170 244 263 302 	-0.105 194 222 265 	-0.045 141 176 221 		86 87 88 89 90 91 92 93 94	3.0 10.0 25.0 41.0 52.5 62.5 72.5 84.0 94.0	0.184			0.187 	0.195	
B12 13 14 15 16 17 18 19 20 21 22	2.0 6.0 15.0 27.5 40.0 50.0 67.5 77.5 88.0 95.3	- 375 - 371 - 371 - 384 - 404 - 395 - 358 - 287 - 214 - 066	-0.297 355 386 441 499 509 592 418 290 104	222 306 354 423 497 587 695 408 155	148 252 310 383 472 476 536 568 291	079 1958 258 334 424 440 475 645 569 412		95 96 97 98 99 100 101 102 103	3.0 10.0 25.0 41.0 52.5 62.5 72.5 86.3 94.5	.173 .026 079 128 122 088 027 .050	.171 .023 097 164 167 124 046 .029	.157 .015 112 192 204 153 066 .012	.145 .011 121 221 262 199 102 017	.148 .021 114 225 277 317 220 101	
C23 24 25 26 27 28 29 30 31 32 33	2.0 6.0 15.0 27.5 40.0 50.0 59.0 67.5 77.5 88.0 95.3	430 414 418 454 454 371 142 015	348 402 459 525 614 618 565 171 013	257 346 424 506 612 645 674 297 005	172 282 373 467 572 629 647 574 320 .079	096 221 316 413 523 581 634 577 500 135		104 105 106 107 108 109 110 111	3.0 10.0 25.0 41.0 52.5 62.5 72.5 85.1 94.6	.190 .028 083 138 129 085 005 .081	.171 .011 116 184 173 116 017 .089 .177	.146 008 142 221 207 146 030 .087	.123 025 169 278 267 197 057 .073 .179	.120 023 171 313 384 372 162 .030 .142	
D34 35 36 37 38 39 40 41 42 43	2.0 15.0 27.5 40.0 50.0 67.5 77.5 87.5 94.2	528 448 455 473 437 371 315 125 005 .083	440 518 583 685 615 551 345 112 .013	337 477 571 694 659 618 588 262 047	232 417 524 641 659 619 626 396 202 114	145 357 467 583 673 655 651 595 348 172		113 114 115 116 117 118 119 120	3.0 10.0 25.0 41.0 52.5 62.5 72.5 87.4 94.2	.212 .057 072 109 065 .014 .129	.177 .029 112 145 093 .022 .143 .175	.139 .002 147 179 122 .009 .135	.097 030 195 231 178 .002 .109	.085 043 222 389 345 073 .096	
E 44 45 46 47 48 49 50 51 52 53 54	2.0 6.0 15.0 27.5 40.0 50.0 57.5 77.5 88.5 95.5	561 512 481 482 501 466 417 338 141 .081	422 491 535 594 670 617 572 400 115 .098	300 416 489 582 701 676 601 111 .036 .069	202 346 433 518 648 610 603 506 266 214 163	090 259 364 482 592 600 587 541 288 299 263	-0.028 202 311 431 537 614 583 575 341 379 334	122 123 124 125 126 127 128 129 130 131	3.0 10.0 25.0 41.0 52.5 62.5 72.5 78.0 85.3 94.1	.274 .053 041 074 041 009 .031 .134 .195	.213 .030 082 112 069 027 .033 .162 .225 .243	.161 009 115 146 097 053 .041 .153 .220	.121 047 166 209 153 109 014 .117 .180	.075 082 222 304 235 190 .043 .093 .162 .133	0.076 074 218 368 368 331 243 070 .076 .092
F55 56 57 58 59 60 61 62 63 64	2.0 6.0 15.0 27.5 49.0 50.0 59.0 67.5 86.5 94.6	637 540 507 508 532 508 468 403 141	486 511 565 615 702 674 617 527 113	- 353 - 433 - 514 - 606 - 727 - 786 - 741 - 624 - 130	242 353 455 566 661 747 696 475 246	121 260 382 500 616 722 709 589 305	052 200 327 447 559 665 715 674 398	132 133 134 135 136 137 138 139 140	3.0 10.0 25.0 41.0 52.5 62.5 72.5 83.4 94.0	.260 .093 014 038 003 .048 .239 .329	.213 .053 054 073 026 .020 .262 .371 .222	.162 .016 090 109 056 014 .255 .366		.051 084 213 254 185 094 .228 .339 .110	.040 092 228 368 320 289 006 .250
G65 66 67 68 69 70 71 72 73 74 75	2.0 6.0 15.0 27.5 40.0 59.0 67.5 77.5 87.2 96.8	734 612 532 530 561 545 492 455 440 147	568 599 595 645 741 729 680 661 350 049	413 505 538 630 718 674 659 615 348 133 005	275 419 474 589 621 592 582 489 375 277 189	128 304 393 517 609 589 589 538 423 336 264	040 228 331 460 574 639 620 606 517 437 360	141 142 143 144 145 146 147 148 149	3.0 10.0 25.0 41.0 52.5 62.5 72.5 84.0 92.0	.317 .120 .015 003 .024 .064 .268 .347 .328	.279 .080 017 027 .036 .052 .287 .385 .253	.227 .038 059 068 012 .027 .264 .357	.169 016 116 126 067 027 .238 .331 .139	.093 079 178 177 117 069 .225 .328 .126	.047 124 271 301 258 167 .083 .214 .101
H76 77 78 79 80 81 82 83 84 85	2.0 6.0 15.0 27.5 40.0 50.0 59.0 67.5 88.3 94.2	693 590 481 478 489 471 413 369 075 .024	657 703 610 558 639 585 544 419 027	,494 ,610 ,608 ,546 ,617 ,605 ,502 ,275 ,061 ,035	352 505 543 420 544 536 406 306 159 141	- 201 - 383 - 454 - 349 - 482 - 473 - 372 - 309 - 212 - 202	078 280 373 308 466 445 391 301 303	150 151 152 153 154 155 156 157	3.0 10.0 25.0 41.0 52.5 62.5 72.5 84.9	.288 .093 (035 (048 (002 .030 .231 .124	.255 .050 070 070 011 002 .242 .155	.197 .004 121 113 051 048 .228 .080	.138 048 187 170 107 112 .197 .009	.074 092 247 230 181 128 .167 034	.005 129 332 378 353 137 .008 067

TABLE 45

$\tilde{\Lambda} = 30^{\circ}, \delta_{a_n} = 10.0^{\circ}, \alpha = 4^{\circ}$

· 	-				10		. CONFI	DENTI	۸L	-	LOWER	SURPAC	¥		
\vdash			UPPE	Mach !				.	Per-	· · ·	DOWAR	Mach N			
eduŢ	Per-	0.60	0,80	0.85	0.89	0.925	0.96	Tube	cent	0,60	0.80	0,85	0.89	0.925	0.96
A 1 2 3 4 5 6 7 8 9 10 11	2.0 6.0 15.0 27.5 40.0 59.0 67.5 77.5 87.5 96.0	-0.735 567 430 392 	-0.652 552 446 442 	-0.535 485 404 404 	-0.440 421 358 362 	-0.345 350 309 311 	0.90	86 87 88 89 90 91 92 93 94	3.0 10.0 25.0 41.0 52.5 62.5 72.5 84.0 94.0	0.353	0,391	0.376	0.372	0.370 .055 	0.90
B12 13 14 15 16 17 18 19 20 21 22	2.0 .6.0 15.0 27.5 40.0 50.0 67.5 77.5 88.0 95.3	846 650 518 483 477 444 400 317 236 082	778 662 564 578 617 587 684 507 333 137	629 587 510 544 612 602 648 795 514 224	515 520 455 493 576 577 591 767 389	403 440 391 437 517 528 524 703 640 495		95 96 97 98 99 100 101 102 103	3.0 10.0 25.0 41.0 52.5 62.5 72.5 86.3 94.5	.381 .163 .011 060 070 047 .003 .070	.370 .161 .004 084 100 072 017 .051	.348 .146 013 109 136 105 043 .021	.337 .141 021 132 174 142 077 011	.330 .142 022 143 211 202 131 056	
23 24 25 26 27 28 29 30 31 32 33	2.0 6.0 15.0 27.5 40.0 50.0 59.0 67.5 77.5 88.0 95.3	942 716 574 537 528 477 400 162 030	833 762 653 684 747 778 773 176 028	651 669 587 648 736 761 754 517 051	-,524 -,585 -,522 -,594 -,676 -,737 -,745 -,679 -,464	406 491 451 530 605 668 729 653 604 224		104 105 106 107 108 109 110 111	3.0 10.0 25.0 41.0 52.5 62.5 72.5 85.1 94.6	.401 .172 .011 069 078 046 .020 .089	.375 .159 009 101 110 069 .012 .098 .172	.342 .133 038 139 148 103 013 .089	.321 .118 058 181 199 149 051 .060 .142	.306 .111 071 217 278 236 108 .026	
D34 35 36 37 38 39 40 41 42 43	2.0 15.0 27.5 40.0 50.0 59.0 67.5 77.5 87.5 94.2	-1.065 609 560 548 487 394 277 145 015	933 750 772 853 843 690 286 128 006	713 666 741 803 749 693 603 380 181 063	562 591 679 746 701 666 612 479 368 292	427 508 604 683 748 697 711 662 522 385		113 114 115 116 117 118 119 120	3.0 10.0 25.0 41.0 52.5 62.5 72.5 87.4 94.2	.421 .200 .023 060 029 .041 .131 .143	.384 .178 003 086 044 .046 .150	.338 .144 040 130 079 .015 .132 .130	.304 .118 077 188 131 048 .085	.274 .095 110 278 215 066 .065	,
E 44 45 46 47 48 49 50 51 52 53 54	2.0 6.0 15.0 27.5 40.0 50.0 59.0 67.5 77.5 88.5 95.5	-1.175 908 644 584 568 502 421 310 152 .007 .058	-1.013 -1.030 820 807 867 855 510 305 105 .024	777 869 768 765 838 810 766 559 178 110	588 717 678 702 744 715 678 545 316 297	460 611 597 648 736 757 729 680 387 345 322	-0.335 497 502 573 665 718 683 670 542 495 437	122 123 124 125 126 127 128 129 130	3.0 10.0 25.0 41.0 52.5 62.5 72.5 78.0 85.3 94.1	.447 .093 .053 013 002 .021 .065 .085 .202	.413 .183 .031 033 010 .021 .062 .173 .242 .244	.375 .069 004 072 048 014 .023 .141 .215 .193	.332 .119 049 131 105 070 032 .048 .183 .135	.307 .098 079 179 146 106 071 .061 .177 .128	0.282 .085 105 257 233 179 056 .119 .171 .126
F55 56 57 58 59 60 61 62 63 64	2.0 6.0 15.0 27.5 49.0 50.0 59.0 67.5 86.5 94.6	-1.255 845 670 611 590 538 481 386 104	-1.063 -1.079 875 833 897 882 585 384 093	819 892 824 824 881 863 842 495 227	630 724 701 727 781 760 744 586 327	500 609 	367 485 507 582 677 718 696 678 604	132 133 134 135 136 137 138 139 140	3.0 10.0 25.0 41.0 52.5 62.5 72.5 83.4 94.0	.458 .230 .074 .018 .028 .084 .232 .319	.424 .206 .054 .000 .024 .081 .262 .370	.379 .171 .017 041 014 .045 .246 .359	.327 .126 035 103 073 013 .220 .336 .104	.294 .098 078 150 111 056 .230 .339	.256 .067 111 240 184 126 .237 .345
G65 66 67 68 69 70 71 72 73 74 75	2.0 6.0 15.0 27.5 40.0 59.0 67.5 77.5 87.2 96.8	-1.467 825 686 618 607 550 455 372 297 078 019	-1.141 -1.152 -1.035 918 925 872 703 333 326 062	844 936 901 894 824 815 681 535 420 248 047	642 755 788 772 750 697 598 323 177	501 626 648 686 654 636 562 491 432 388 336	- 343 - 485 - 525 - 641 - 642 - 641 - 623 - 5678 - 448	141 142 143 144 145 146 147 148 149	3.0 10.0 25.0 41.0 52.5 62.5 72.5 84.0 92.0	.493 .246 .090 .035 .055 .104 .164 .322 .161	.464 .225 .080 .032 .069 .096 .311 .383 .235	.420 .184 .037 011 .029 .081 .287 .359 .189	.364 .133 015 070 024 .024 .253 .335 .141	.325 .098 053 112 059 020 .235 .319 .105	.271 .050 104 159 098 043 .223 .326 .115
H76 77 78 79 80 81 82 83 84 85	2.0 6.0 15.0 27.5 40.0 50.0 59.0 67.5 88.3 94.2	-1.229855587535511462369264058041	-1,203 -1,197 -1,063 -1,016 -,550 -,400 -,356 -,263 -,043 -,021	915 969 960 542 785 543 370 370 131 109	689 790 804 450 653 488 387 338 231 212	541 665 706 397 623 521 429 386 301 288	374 519 571 354 582 572 523 471 419 420	150 151 152 153 154 155 156 157	3.0 10.0 25.0 41.0 52.5 62.5 72.5 84.9	.447 .183 .022 022 .004 .051 .169	.417 .164 003 038 .008 .037 .236 .115	.371 .121 054 093 043 018 .196 .035	*.318 :.075 110 157 101 075 .149 045	283 .048 153 220 158 132 .111 082	. 240 . 024 176 293 222 189 012 088

TABLE 46

 $\left[\Lambda = 30^{\circ}, \, \delta_{\mathbf{a}_{n}} = 10.0^{\circ}, \, \alpha = 7^{\circ}\right]$

			TEPPP	SURFAC			CONFII	DENTIA I	·L		LOWER	SURPAC			
	Per-		UITEN	Mach N					Per-			Mach N			
Tube		0.60	0.80	0.85	0.89	0.925	0.96	Tube	cent	0.60	0.80	0.85	0.89	0.925	0.96
A 1 2 3 4 5 6 7 8 9 10 11	2.0 6.0 15.0 27.5 40.0 50.0 59.0 67.5 77.5 87.5 96.0	-1.944 931 663 546 	-1.380 -1.227 691 632 	-1.133 -1.012 633 580	-0.973 889 580 535 	-0.806 760 498 470	0.90	86 87 88 89 90 91 92 93 94	3.0 10.0 25.0 41.0 52.5 62.5 72.5 84.0 94.0	0.595	0.587	0.573 .170 	0.572	0.568	0.96
B12 13 14 15 16 17 18 19 20 21 22	2.0 6.0 15.0 27.5 40.0 59.0 67.5 77.5 88.0 95.3	-2.004 -1.135 753 639 581 514 455 368 274 105	-1.423 -1.304 -1.092 748 800 718 781 598 402 183	-1.159 -1.132 982 699 762 745 760 927 682 329	991 993 855 658 697 705 693 811 564	820 850 729 587 623 643 619 788 740 629		95 96 97 98 99 100 101 102 103	3.0 10.0 25.0 41.0 52.5 62.5 72.5 86.3 94.5	.585 .332 .139 .034 .008 .013 .053 .104	.555 .320 .128 .015 016 007 .035 .091	.536 .304 .111 008 049 043 001 .053	.529 .301 .106 021 072 067 026	.520 .298 .102 031 096 094 050 005	
23 24 25 26 27 28 29 30 31 32 33	2.0 6.0 15.0 27.5 40.0 50.0 59.0 67.5 77.5 88.0 95.3	-2.110 -1.367 835 692 623 533 433 175 057 .011	-1.434 -1.399 -1.238 833 922 951 723 202 112 073	-1.155 -1.160 -1.071 995 833 917 978 352 300 189	974 -1.005 959 884 750 837 913 686 383 240	786 855 833 767 717 756 837 850 443 314		104 105 106 107 108 109 110 111	3.0 10.0 25.0 41.0 52.5 62.5 72.5 85.1 94.6	.598 .345 .139 .027 005 .008 .056 .101 .149	.555 .316 .114 001 037 017 .041 .107	.526 .290 .087 041 079 058 .002 .065	.512 .279 .073 065 113 096 033 .035	.496 .268 .062 088 148 132 062 .020	
D34 35 36 37 38 39 40 41 42 43	2.0 15.0 27.5 40.0 50.0 59.0 67.5 77.5 87.5 94.2	-1.890 971 700 624 528 410 287 152 042 .008	-1.465 -1.340 -1.255 -1.144 -1.035 451 239 125 048 016	-1.171 -1.134 -1.128 -1.079 -1.057 646 328 271 270 260	979 994 -1.013 975 959 864 824 495 346	791 857 891 923 905 841 880 873 609 397		113 114 115 116 117 118 119 120	3.0 10.0 25.0 41.0 52.5 62.5 72.5 87.4 94.2	.610 .368 .150 .008 .021 .071 .136 .130	.556 .328 .117 025 005 .062 .153 .130	.518 .295 .078 081 061 .014 .082	.495 .274 .054 126 107 018 .054 .004	.469 .254 .030 175 148 051 .038 007	
E 44 45 46 47 48 49 50 51 52 53	2.0 6.0 15.0 27.5 40.0 50.0 59.0 67.5 77.5 88.5 95.5	-1.840 -1.706 -1.119 723 621 522 417 309 165 035	-1.482 -1.441 -1.342 -1.253 -1.165 771 590 428 182 019 051	-1.198 -1.198 -1.137 -1.063 962 688 593 535 385 372 322	979 -1.032 984 947 902 725 623 563 429 472 445	814 884 8875 8756 856 534 586	-0.643 729 742 787 838 859 819 866 668 714 650	122 123 124 125 126 127 128 129 130 131	3.0 10.0 25.0 41.0 52.5 62.5 72.5 78.0 85.3 94.1	.621 .097 .168 .068 .054 .057 .097 .125 .177 .166	.578 .338 .143 .046 .041 .046 .112 .161 .216 .218	.540 .295 .104 001 012 011 .048 .097 .148	.507 .257 .069 -047 061 061 .002 .056 .124	.481 .238 .043 083 096 092 026 .034 .138 .093	0.445 .216 .016 121 123 114 048 .046 .158
F55 56 57 58 59 60 61 62 63 64	2.0 6.0 15.0 27.5 49.0 50.0 59.0 67.5 86.5 94.6	-1.742 -1.696 -1.223 776 631 548 469 370 126	-1.527 -1.463 -1.345 -1.253 -1.022 731 562 435 248	-1.246 -1.206 -1.124 -1.051 811 626 526 474 406	-1.018 -1.031 993 926 876 690 567 512 455	838 884 880 887 855 831 757 658 567	645 728 742 790 845 882 856 816 810	132 133 134 135 136 137 138 139 140	3.0 10.0 25.0 41.0 52.5 62.5 72.5 83.4 94.0	.625 .384 .185 .094 .081 .123 .240 .322 .073	.581 .349 .158 .069 .062 .117 .244 .344 .147	.537 .305 .113 .014 .003 .062 .200 .309	.500 .271 .076 030 041 .021 .190 .307	.470 .244 .048 069 073 005 .191 .320	.425 .207 .013 113 106 036 .208 .335 .097
G65 66 67 68 69 70 71 72 73 74 75	2.0 6.0 15.0 27.5 40.0 50.0 59.0 67.5 77.5 87.2 96.8	-1.454 -1.425 -1.240 920 668 537 433 347 264 135 073	-1.564 -1.484 -1.345 -1.130 755 614 515 432 334 242 190	-1.277 -1.240 -1.157 -1.070 952 774 661 440 336 284 220	-1.044 -1.056 -1.001 931 899 795 716 625 448 352 280	849 897 887 837 815 748 662 618 566 486	622 725 743 795 842 879 905 913 894 794	141 142 143 144 145 146 147 148	3.0 10.0 25.0 41.0 52.5 62.5 72.5 84.0 92.0	.629 .381 .187 .099 .099 .141 .165 .328 .154	.591 .342 .157 .066 .067 .115 .175 .326 .128	.548 .298 .112 .017 .023 .075 .157 .313	.512 .264 .077 022 010 .039 .138 .307	.482 .233 .048 052 036 .008 .170 .310	.432 .190 .014 081 051 011 .180 .320
H76 77 78 79 80 81 82 83 84 85	2.0 6.0 15.0 27.5 40.0 50.0 59.0 67.5 88.3 94.2	-1.188 -1.121 916 688 520 417 335 272 158 139	-1.002 883 799 476 602 522 453 394 277 255	-1.049 -1.006 861 436 588 534 483 425 324 301	-1.012 965 882 425 549 496 461 423 365 355	871 913 877 482 676 556 505 471 425 421	657 735 757 465 857 889 909 864 -1.008 882	150 151 152 153 154 155 156 157	3.0 10.0 25.0 41.0 52.5 62.5 72.5 84.9	.551 .280 .084 .011 .015 .066 .084 002	.520 .253 .042 042 032 .022 .129 068	.482 .214 001 086 067 011 .128 089	.450 .182 042 139 114 053 .107 127	.406 .159 074 190 155 096 .100 135	.383 .132 097 236 193 146 .065 111

TABLE 47

 $\left[\Lambda = 45^{\circ}, \delta_{a_{\text{n}}} = -9.4^{\circ}, \alpha = -2^{\circ}\right]$

			,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,				. CONFIL	ENTI.	AL		LUMBO	SURFAC	p		
<u> </u>			UPPE	Nach 1	Number		-		Per-	Ι	LOWER	Mach N			
Tube	Per- cent chord				T	1	-	Tube	cent	<u> </u>		· · · · ·			<u> </u>
A 1 2 3 4 5 6 7 8 9 10 11	2.0 6.0 15.0 27.5 40.0 50.0 67.5 77.5 87.5 96.0	0.60 0.226 .096 .008 019 	0.80 0.248 .110 .020 008 	0.89 0.255 .120 .031 .003	0.925 0.267 .134 .045 .018 	0.96 0.284 .154 .066 .040		86 87 88 89 90 91 92 93	3.0 10.0 25.0 41.0 52.5 62.5 72.5	0.60 -0.303 105 158 	0.80 -0.292 096 164 	0.89 -0.261 078 156 	0.925 -0.236 060 138 	0.96 -0.191 035 105 	
B12 13 14 15 16 17 18 19 20 21 22	2.0 6.0 15.0 27.5 40.0 50.0 67.5 77.5 88.0 95.3		 025 099 153 168 136		 014 087 158 191 150	 084 066 137 178 134 		95 96 97 98 99 100 101 102 103	3.0 10.0 25.0 41.0 52.5 62.5 72.5 86.3 94.5	366 243 205 205 191 	386 246 229 238 235 	353 201 236 265 290 	327 166 231 257 290 	282 149 200 231 267 	
23 24 25 26 27 28 29 30 31 32 33	2.0 6.0 15.0 27.5 40.0 50.0 59.0 67.5 77.5 88.0 95.3	.231 .067 048 121 174 177 141 101 033 .033	.232 .066 057 140 198 199 215 167 125 053	.225 .059 068 155 230 257 265 213 158 084 026	.228 .064 064 154 234 297 298 250 198 111 064	.236 .075 050 141 219 277 299 271 253 181 124		104 105 106 107 108 109 110 111 112	3.0 10.0 25.0 41.0 52.5 62.5 72.5 85.1 94.6	409 263 228 221 195 151 091 020	437 294 266 265 239 186 118 032	431 311 300 334 304 234 151 086	412 297 303 359 378 339 231 086 011	361 268 276 333 365 361 312 186 088	
D34 35, 36 37 38 39 40 41 42 43	2.0 15.0 27.5 40.0 50.0 59.0 67.5 77.5 87.5 94.2	.215 .028 121 174 183 135 127 065 .001	.201 068 145 209 215 151 135 083 004	.186 092 180 252 259 204 165 098 013	.182 103 203 293 309 275 175 098 010	.180 101 200 313 365 373 319 187 070		113 114 115 116 117 118 119 120 121	3.0 10.0 25.0 41.0 52.5 62.5 72.5 87.4 94.2	424 256 233 220 185 128 056 .033	479 280 274 259 217 149 066 .036	512 314 310 307 249 164 075 .026	507 355 360 425 326 170 068 .033	449 323 344 430 448 386 173 .019	
£44 45 46 47 48 49 50 51 52 53 54	2.0 6.0 15.0 27.5 40.0 50.0 59.0 67.5 77.5 88.5 95.5	.268 .086 032 096 141 139 118 081 .004 .172	.251 .061 063 135 184 179 149 084 017 .161	.241 .048 084 163 220 212 174 105 019 .155	.233 .037 100 181 237 226 186 108 014 .157	.216 .019 126 224 312 311 229 101 .009 .182 .129		122 123 124 125 126 127 128 129 130	3.0 10.0 25.0 41.0 52.5 62.5 72.5 78.0 85.3 94.1	403 274 228 214 187 154 075 038 .015	425 299 256 238 203 168 084 042 .013 .063	462 308 276 251 212 179 088 043 .011	494 347 323 238 186 170 079 034 .020	470 350 388 400 259 147 054 010 .038 .082	
61 62 63	2.0 6.9 15.0 27.5 49.0 50.0 59.0 67.5 86.5 94.6	.266 .104 015 075 111 095 050 046	.244 .078 046 112 152 129 073 .017	.235 .064 070 139 182 153 084 .014	.232 .059 079 153 200 156 081 .017	.201 .027 122 201 249 178 065 .039		132 133 134 135 136 137 138 139 140	3.0 10.0 25.0 41.0 52.5 62.5 72.5 83.4 94.0	429 284 243 231 212 181 158	461 306 267 258 240 206 181	475 317 265 279 256 230 214	501 324 264 266 250 221 227	507377381321233167172	
065 66 67 68 69 70 71 72 73 74 75	2.0 6.0 15.0 27.5 40.0 50.0 59.0 67.5 77.5 87.2 96.8	.305 .137 .023 039 072 065 022 002 .169	.289 .118 .001 062 098 088 047 004 .165 	.280 .107 012 077 113 102 061 .018 .169	.278 .105 017 081 118 105 063 .022 .174 	.273 .103 018 080 116 103 054 .033 .175		141 142 143 144 145 146 147 148 149	3.0 10.0 25.0 41.0 52.5 62.5 72.5 84.0 92.0	511 329 267 244 220 165 142 071	638 362 302 282 249 185 150 065	592 338 368 320 265 199 152 055	549 329 381 402 329 173 138 039	552 335 358 360 366 235 161 037	
H76 77 78 79 80 81 82 83 84 85	2.0 6.0 15.0 27.5 40.0 50.0 59.0 67.5 88.3 94.2	.218 .059 026 079 106 096 056 032 .106	.201 .038 051 105 132 114 077 013 .115	.194 .024 070 124 150 123 087 015 .130	.194 .020 077 133 161 122 090 003 .144 .129	.199 .021 080 137 170 130 097 018 .162 .146		150 151 152 153 154 155 156 157	3.0 10.0 25.0 41.0 52.5 62.5 72.5 84.9	531 283 232 158 102 073 .060	601 313 270 167 102 066 .068	630 308 301 162 089 089 082	664 356 332 	666 389 409 111 023 .008	

TABLE 48

 $\left[\Lambda = 45^{\circ}, \delta_{\mathbf{a}_{\underline{n}}} = -9.4^{\circ}, \alpha = 2^{\circ}\right]$

<u> </u>			THE PER	0000040	D		CONFIDE	NTIA	L		1.01022	SURFACI	2		
Ь			UPPER	SURFAC Mach N				-	Per-		LOWBIT	Mach Ni			
Tube	Per- cent		- 00		- 1	0.00		Tube	cent	. 1	- 0-			0.06	_
A 1 2 3 4 5 6 7 8 9 10 11	2.0 6.0 15.0 27.5 40.0 59.0 67.5 77.5 87.5 96.0	0.60 -0.177 184 175 161 	-0.138 164 166 158 	0.89 -0.108142150145	0.925 -0.067 066 123 119 	0.96 -0.031075092093		86 87 88 89 90 91 92 93 94	3.0 10.0 25.0 41.0 52.5 62.5 72.5 84.0 94.0	0.60 0.103 .014 015 	0.80 0.111 .023 013 	0.89 0.123 .033 004 	0.925 0.128 .041 .003 	0.96 .056 .021 	
B12 13 14 15 16 17 18 19 20 21 22	2.0 6.0 15.0 27.5 40.0 50.0 67.5 77.5 88.0 95.3	 230 244 258 247 212 	 233 261 290 291 265 	 225 255 307 322 306 	 196 225 281 300 291	 207 192 240 270 259		95 96 97 98 99 100 101 102 103	3.0 10.0 25.0 41.0 52.5 62.5 72.5 86.3 94.5	.094 012 060 096 095 	.094 018 067` 112 115 	.097 014 072 121 135 	.097 011 072 126 148 	.110 .006 058 116 144 	,
C23 24 25 26 27 28 29 30 31 32 33	2.0 6.0 15.0 27.5 40.0 59.0 67.5 77.5 88.0 95.3	230 265 270 281 297 276 257 220 138 062 005	255 273 294 321 345 334 311 275 183 084 019	225 263 301 346 404 421 421 369 277 128 053	175 225 269 322 387 403 453 415 385 217 101	129 188 248 354 381 427 386 280 157		104 105 106 107 108 109 110 111 112	3.0 10.0 25.0 41.0 52.5 62.5 72.5 85.1 94.6	.099 009 075 108 105 081 038 .017	.088 021 093 130 131 101 055 .012	.114 034 108 156 159 125 075 005	.065 044 122 179 188 153 101 026 .013	.071 035 119 192 213 194 141 060 019	
D34 35 36 37 38 39 40 41 42 43	2.0 15.0 27.5 40.0 50.0 59.0 67.5 77.5 87.5 94.2	336 290 290 304 298 230 220 089 012 .048	344 353 344 365 369 283 283 292 013 . 052	329 371 414 438 377 367 075 004	- 268 - 346 - 388 - 491 - 533 - 425 - 322 - 304 - 054	215 311 384 384 460 521 486 479 453 094 009		113 114 115 116 117 118 119 120 121	3.0 10.0 25.0 41.0 52.5 62.5 72.5 87.4 94.2	.117 .014 069 106 098 066 009 .063	.105 .001 088 129 128 078 011 .068 .079	.083 015 109 151 140 090 017	.053 037 135 179 165 106 018 .067	.036 047 153 224 213 157 037 .056	
E44 45 46 47 48 49 50 51 52 53	2.0 6.0 15.0 27.5 40.0 50.0 59.0 67.5 77.5 88.5 95.5	342 307 283 271 271 240 204 139 034 .152 .102	398 365 343 334 333 297 262 147 035 .165	444 415 421 432 418 379 322 113 022 168 119	384 385 409 470 532 461 168 027 .112	307 331 363 429 525 539 512 434 142 .004		122 123 124 125 126 127 128 129 130 131	3.0 10.0 25.0 41.0 52.5 62.5 72.5 78.0 85.3 94.1	.141 .011 064 098 107 088 047 .000	.150 .011 067 104 104 092 035 .002 .054	.141 003 079 113 109 103 028 .002	.121 018 090 118 107 101 024 .010 .065 .102	.099 036 108 133 103 104 024 .009 .068 .103	
F55 56 57 58 59 60 61 62 63 64	2.0 6.0 15.0 27.5 49.0 50.0 59.0 67.5 86.5 94.6	341 292 269 251 243 192 119 022	411 358 333 313 300 237 141 026	482 432 415 399 380 264 137 015	- 447 - 429 - 448 - 495 - 361 - 137 - 006	357 369 405 467 554 533 302 157		132, 133 134 135 136 137 138 139 140	3.0 10.0 25.0 41.0 52.5 62.5 72.5 83.4 94.0	131 .008 073 116 132 123 120	.146 .015 073 121 140 132 134	.148 .010 076 126 149 146 153	081 126 145 143	.103 021 089 135 146 135 146	
G65 66 67 68 69 70 71 72 73 74 75	2.0 6.0 15.0 27.5 40.0 50.0 59.0 67.5 77.5 87.2 96.8	280 258 225 207 191 156 107 .001 .135	359 324 278 251 227 189 124 .006 .142	455 400 336 291 261 219 090 .007 .143	513 473 382 310 228 175 075 .020 .144	- 460 - 481 - 460 - 428 - 371 - 212 - 035 - 045 - 088 		141 142 143 144 145 146 147 148 149	3.0 10.0 25.0 41.0 52.5 62.5 72.5 84.0 92.0	.116 021 090 136 143 124 116 122	.143 014 096 150 156 140 124 103	.162 012 104 165 172 151 134 090	012 106 167 170	.144 034 130 192 184 159 118 051	
H76 77 78 79 80 81 82 83 84 85	2.0 6.0 15.0 27.5 40.0 50.0 59.0 67.5 88.3 94.2	257 233 202 189 182 147 119 .034 .122	338 294 248 221 204 165 144 .054 .143	-,425 -,368 -,302 -,252 -,226 -,192 -,098 ,066 ,166 ,173	\\45 \\409 337 272 2\\40 189 035 . 075 . 185	475 447 365 281 216 127 009 .083 .194 .187		150 151 152 153 154 155 156 157	3.0 10.0 25.0 41.0 52.5 62.5 72.5 84.9	.087 049 111 114 078 067	.102 055 133 127 085 062 .093	.113 062 158 	.127 056 170 148 102 048 .131	.143 042 177 161 116 020 .148	

TABLE 49

 $\left[\Lambda = 45^{\circ}, \, \delta_{a_{11}} = -9.4^{\circ}, \, \alpha = 7^{\circ}\right]$

			11000	o diam's	CP		CONFIDE	NTIA	L		I Valou	911224	•0		
\vdash	Per-	Γ	UPPE	Mach	Number			-	Per-		LOWER	SURPAC Mach			
Tube	cent	0,60	0,80	0.89	 	0.06		Tube	cent		T	т —		T	
A 1 2 3 4 5 6 7 8 9 10 11	2.0 6.0 15.0 27.5 40.0 50.0 59.0 67.5 77.5 87.5 96.0	-1.121 605 426 349 	-1.152 600 432 365 	-0.998 540 394 311	0.925 -0.877 515 357 299 	0.96 -0.785 481 319 266 		86 87 88 89 90 91 92 93	3.0 10.0 25.0 41.0 52.5 62.5 72.5 84.9 94.9	0.60 0.407 .166 .153 	0,80 0,409 .178 .161 	0.89 0.414 .185 .187 	0.925 0.422 .194 .179 	0.96 0.434 .206 .194 	
B12 13 14 15 16 17 18 19 20 21 22	2.0 6.0 15.0 27.5 40.0 59.0 67.5 77.5 88.0 95.3	511 436 402 387 326			 453 425 428 439 	 413 390 393 418 410 		95 96 97 98 99 100 101 102 103	3.0 10.0 25.0 41.0 52.5 62.5 72.5 86.3 94.5	.400 .220 .113 .041 .020	.393 .215 .112 .038 .017	.388 .212 .108 .035 .009 	.391 .216 .113 .048 .006	.400 .226 .132 .047 .013	
23 24 25 26 27 28 29 30 31 32 33	2.0 6.0 15.0 27.5 40.0 59.0 67.5 77.5 88.9 95.3	-1.402 -1.074 571 480 446 473 339 260 195 118 158	-1.420 -1.135 644 582 562 427 320 236 139 012	-1.158 -1.125 562 570 599 566 641 580 510 279 085	-1.051 -1.007 506 527 564 573 600 550 548 419 209	972 901 456 486 523 536 560 516 517 427 230		104 105 106 107 108 109 110 111 112	3.0 10.0 25.0 41.0 52.5 62.5 72.5 85.1 94.6	.407 .232 .100 .030 .005 .028 .073 .094	.391 .220 .091 .015 010 004 .021 .063	.378 .207 .079 .001 030 025 001 .045	.373 .204 .075 010 042 038 017 .020	.375 .207 .078 007 042 039 018 .021	
D34 35 36 37 38 39 40 41 42 43	2.0 15.0 27.5 40.0 50.0 59.0 67.5 77.5 87.5 94.2	-1.298 747 476 430 373 422 201 129 046 006	-1.451 800 621 525 433 301 249 155 053 014	-1.267 904 667 734 774 506 360 217 121 088	-1.135 917 613 684 723 698 685 364 231 186	-1.027 855 571 636 682 684 686 437 261 211		113 114 115 116 117 118 119 120 121	3.0 10.0 25.0 41.0 52.5 62.5 72.5 87.4 94.2	.414 .252 .106 .028 .003 .007 .038 .097	.398 .240 .095 .016 011 002 .031 .079	.376 .219 .074 008 036 025 .011 .073	.363 .207 .060 027 062 052 019 .026 021	.357 .203 .056 034 059 058 026 .023 033	
8 44 45 46 47 48 49 50 51 52 53	2.0 6.0 15.0 27.5 40.0 50.0 59.0 67.5 77.5 88.5 95.5	-1.104 -1.070 946 521 361 303 236 157 071 .053 .044	-1.227 -1.160 -1.066 594 413 339 259 176 087 .020 .023		-1.198 -1.166 -1.051933723801555303245200163	-1.077 -1.055 957 880 667 751 574 574 326 284 250		122 123 124 125 126 127 128 129 130 131	3.0 10.0 25.0 41.0 52.5 62.5 72.5 78.0 85.3 94.1	.427 .257 .116 .036 .003 018 .015 .028 .063	.420 .246 .110 .029 .003 024 .010 .023 .057	.396 .208 .090 .013 014 044 008 .005 .037	.385 .208 .073 008 036 073 035 022 .011		
P55 56 57 58 59 60 61 62 63 64	2.0 6.0 15.0 27.5 49.0 50.0 59.0 67.5 86.5 94.6	-1.103 -1.074 826 546 385 273 177 085	-1.284 -1.263 -1.055 535 437 315 194 089	 -1.191 -1.098 674 205 161 111	-1.186	-1.126 -1.073 987 928 878 744 640 355		132 133 134 135 136 137 138 139 140	3.0 10.0 25.0 41.0 52.5 62.5 72.5 83.4 94.0	.427 .257 .109 .024 018 042 061	.420 .251 .105 .017 031 054 077	.394 .227 .088 .000 048 074 100	.377 .208 .068 022 072 101 132		
665 66 67 68 69 70 71 72 73 74 75	2.0 6.0 15.0 27.5 40.0 50.0 59.0 67.5 77.5 87.2 96.8	854 831 754 534 349 244 163 098 033	988 980 931 501 375 318 208 126 038	-1.199 -1.169 -1.039 739 518 393 192 132 081 085	-1.240 -1.152 -1.098 855 560 528 230 173 179	-1.117 -1.055 989 861 669 590 528 450 335	,	141 142 143 144 145 146 147 148 149	3.0 10.0 25.0 41.0 52.5 62.5 72.5 84.0 92.0	.417 .232 .089 095 042 046 066	.418 .231 .085 014 051 064 081 071	.398 .246 .070 029 054 059 068	.376 .184 .042 058 093 087 131 095		
80 81 82 83 84	2.0 6.0 15.0 27.5 40.0 50.0 59.0 67.5 88.3 94.2	603 559 519 411 305 221 158 105 019 .008	492 479 452 411 438 404 336 234 002 020	429 423 410 357 381 394 391 368 217 126	399 388 385 333 360 368 373 364 243 169	421 413 396 342 370 353 340 340 298 267			3.0 10.0 25.0 41.0 52.5 62.5 72.5 84.9	.305 .137 .010 065 052 072 .005	.305 .133 010 092 078 090 .022	.310 .134 024 123 108 124 037	.302 .121 044 153 131 144 075		

TABLE 50

 $\left[\Lambda = 45^{\circ}, \, \delta_{\underline{a}_{\underline{n}}} = 10.0^{\circ}, \, \alpha = -2^{\circ}\right]$

			UPPER	SURPAC	E		CONFID	ENTIA I	'r —		LOWER	SURPAC	Ŗ		
	Per-			Mach N					Per-			Mach N			
Tube	cent chord	0.60	0.80	0.89	0.925	0.96		Tube	cent chord	0.60	0.80	0.89	0.925	0.96	
A 1 2 3 4 5 6 7 8 9 10 11	2.0 6.0 15.0 27.5 40.0 50.0 59.0 67.5 77.5 87.5 96.0		0.245 .107 .019 009 	0.253 .116 .031 .002	0.263 .132 .044 .017	0.279 .150 .065 .039		86 87 88 89 90 91 92 93	3.0 10.0 25.0 41.0 52.5 62.5 72.5 84.0 94.0		-0.287 096 162 	-0.259 079 155 	-0.224 059 135 	-0.181 035 104 	
B12 13 14 15 16 17 18 19 20 21 22	2.0 6.0 15.0 27.5 40.0 50.0 67.5 77.5 88.0 95.3		 026 100 156 174 160		 013 086 158 168 	.002 065 140 175 145		95 96 97 98 99 100 101 102 103	3.0 10.0 25.0 41.0 52.5 62.5 72.5 86.3 94.5		376 242 226 236 228 	351 202 237 264 288	327 165 229 255 289 	277 150 200 229 266 	
C23 24 25 26 27 28 29 30 31 32 33	2.0 6.0 15.0 27.5 40.0 50.0 59.0 67.5 77.5 88.0 95.3		.231 .066 058 139 202 211 219 169 125 047	.226 .063 067 154 231 260 266 212 160 077 018	.230 .066 063 152 233 282 300 253 202 103 042	.238 .078 049 136 219 288 295 268 248 172 109		104 105 106 107 108 109 110 111 112	3.0 10.0 25.0 41.0 52.5 62.5 72.5 85.1 94.6		435 289 263 258 233 179 112 027	440 310 303 332 301 230 146 051 .012	\$410 294 302 358 376 335 224 077 009	360 266 274 329 365 360 305 162 076	
D34 35 36 37 38 39 40 41 42 43	2.0 15.0 27.5 40.0 50.0 59.0 67.5 77.5 87.5 94.2		.194 069 148 213 225 168 146 088 088	.190 086 178 253 261 213 173 102 015	.183 098 199 293 317 257 173 097 008	.181 095 196 307 360 373 300 164 035		113 114 115 116 117 118 119 120 121	3.0 10.0 25.0 41.0 52.5 62.5 72.5 87.4 94.2	•	484 278 267 250 206 138 056 .041	534 306 311 301 242 158 068 .035 .055	330	467 320 344 430 427 360 149 020 038	
E 44 45 46 47 48 49 50 51 52 53	2.0 6.0 15.0 27.5 40.0 50.0 57.5 77.5 88.5 95.5	0.224 .033 074 147 202 212 199 169 126 .103	.251 .056 073 156 220 230 220 176 097 .083	.260 .061 077 167 237 247 227 176 099 .075	.256 .057 087 176 241 243 222 174 090 .082	.243 .042 107 211 309 323 259 164 065 .109		122 123 124 125 126 127 128 129 130	3.0 10.0 25.0 41.0 52.5 62.5 72.5 78.0 85.3 94.1	320 230 178 149 098 057 .020 .057 .111	425 281 225 189 129 080 .008 .055 .110	526 298 265 222 153 096 .003 .053 .109	566 360 327 222 148 097 .005 .056 .110	538 364 400 415 236 085 -019 -068 -116 -130	
F55 56 57 58 59 60 61 62 63 64	2.0 6.0 15.0 27.5 49.0 50.0 59.0 67.5 86.5 94.6	.198 .036 084 159 221 231 234 233	.232 .048 079 166 239 254 259 260	.248 .069 077 169 249 264 277	.255 .075 076 167 247 263 243 252	.228 .050 108 202 277 278 240 214		132 133 134 135 136 137 138 139 140	3.0 10.0 25.0 41.2 52.5 62.5 72.5 83.4 94.0	312 208 158 116 067 .020 .131 	417 261 200 148 087 .012 .125 	536 297 234 178 100 -009 -124 	589 297 245 188 101 .007 .126 	- 581 - 400 - 396 - 255 - 079 - 034 - 124 	
665 66 67 68 69 70 71 72 73 74	2.0 6.0 15.0 27.5 40.0 50.0 59.0 67.5 77.5 87.2 96.8	.178 .017 090 166 231 256 247 240 263 	.221 .041 086 175 254 286 276 265 284 	.246 .056 084 185 274 313 304 287 297	.263 .070 078 186 296 341 318 269 257	.269 .079 070 173 278 346 353 324 243 		141 142 143 144 145 146 147 148 149	3.0 10.0 25.0 41.0 52.5 62.5 72.5 84.0 92.0	247 189 133 087 031 .066 .138 .229	341 245 158 102 034 .063 .149 .225	1443 273 186 120 041 060 146 217 	508 235 210 123 041 .028 .143 .213	586 299 231 107 031 .068 .148 .219	
H76 77 78 79 80 81 82 83 84 85	2.0 6.0 15.0 27.5 40.0 50.0 67.5 88.3 94.2	.083 .098 120 179 221 228 199 162 096 .018	.102 049 139 210 257 257 212 173 067 .010	.117 052 163 251 308 297 249 213 .019	.134 045 162 265 347 326 283 245 .052	.157 027 150 267 366 364 321 245 .083		150 151 152 153 154 155 156 157	3.0 10.0 25.0 41.0 52.5 62.5 72.5 84.9	.005 163 133 045 .060 .132 .102	264 202 154 029 .058 .133 .110	350 218 175 024 .066 .140 .130	404 284 209 017 .070 .145 .134	438 215 220 001 .090 .159 .154	

TABLE 51

 $\left[\Lambda = 45^{\circ}, \delta_{a_n} = 10.0^{\circ}, \alpha = 2^{\circ}\right]$ CONFIDENTIAL

			The man	SURPAG			CONFIDE	NTIAL			LOWER	SURFAC	 B		
	Per-		UFFBR	Mach %					Per-		2011	Mach N			
Tube	cent	0.60	0.80	0.89	0.925	0.96		Tube	cent	0.60	0.80	0.89		0.06	
A 1 2 3 4 5 6 7 8 9 10 11	2.0 6.0 15.0 27.5 40.0 50.0 67.5 77.5 87.5 96.0	-0.182 189 179 164 	-0.150 172 171 161	-0.101 136 146 141 	0.084 116 128 120	-0.040 080 095 088 		86 87 88 89 90 91 92 93 94	3.0 10.0 25.0 41.0 52.5 62.5 72.5 84.0 94.0	0.109 .018 012 	0.118 .027 009 	0.117 .033 008	0.925 0.134 .046 .005 	0.96 0.151 .061 .034 	
B12 13 14 15 16 17 18 19 20 21 22	2.0 6.0 15.0 27.5 40.0 50.0 59.0 67.5 77.5 88.0 95.3		 239 264 296 299 286 		 199 224 281 304 316			95 96 97 98 99 100 101 102 103	3.0 10.0 25.0 41.0 52.5 62.5 72.5 86.3 94.5	.102 007 056 092 089	.099 013 065 108 110	.089 021 078 126 136	.100 .007 071 125 142	.112 .007 058 116 141 	
223 24 25 26 27 28 29 30 31 32 33	2.0 6.0 15.0 27.5 40.0 50.0 67.5 77.5 88.0 95.3	281 273 276 290 303 276 264 227 142 055	261 275 299 324 356 339 318 280 189 079 007	- 201 - 245 - 293 - 339 - 421 - 369 - 123 - 1039	7226 22 72 25 25 25 25 25 25 25 25 25 25 25 25 25	126 183 228 281 353 378 424 384 384 280 143		104 105 106 107 108 109 110 111 112	3.0 10.0 25.0 41.0 52.5 62.5 72.5 85.1 94.6	.107 002 069 102 099 073 033 .018	.092 017 088 127 125 096 051 .008	.064 044 116 163 128 078 012	.066 043 122 177 184 147 098 029	068 037 120 195 214 195 141 068 031	
D34 35, 36 37 38 39 40 41 42 43	2.0 15.0 27.5 40.0 50.0 59.0 67.5 77.5 87.5 94.2	353 301 303 319 296 235 224 095 017 -046	- 350 - 337 - 349 - 376 - 354 - 290 - 286 - 091 - 018	297 356 404 489 456 360 063 005 -056	- 265 - 349 - 384 - 539 - 545 - 545 - 545 - 663	203 305 354 454 508 475 474 463 101 003		113 114 115 116 117 118 119 120 121	3.0 10.0 25.0 41.0 52.5 62.5 72.5 87.4 94.2	.127 .024 056 093 086 053 .004 .067	.105 .005 082 120 110 069 .002 .072	.061 028 116 155 141 090 007 .071	.047 041 134 176 161 111 .002 .071	.023 054 158 228 217 163 037 .054	
E44 45 46 47 48 49 50 51 52 53	2.0 6.0 15.0 27.5 40.0 50.0 67.5 77.5 88.5 95.5	429 371 335 329 339 318 287 256 113 .080	398 371 361 367 386 362 327 303 111 .083	-379 -379 -401 -426 -432 -372 -265 -110 -082	320 342 383 450 531 487 365 116 .103	234 285 337 409 509 543 507 491 350 .083		122 123 124 125 126 127 128 129 130 131	3.0 10.0 25.0 41.0 52.5 62.5 72.5 78.0 85.3 94.1	.190 .054 015 039 015 .000 .066 .105 .149	.157 .022 044 065 036 015 .062 .096 .152 .159	.124 009 074 091 058 033 .050 .092 .153 .160	.101 028 089 103 065 036 .053 .097 .162 .172	.066 057 124 136 085 051 .042 .094 .163 .173	
F55 56 57 58 59 60 61 62 63 64	2.0 6.0 15.0 27.5 49.0 50.0 59.0 67.5 86.5 94.6	482 394 355 349 365 345 323 306	437 380 386 413 401 377 358	-,417 -,395 -,403 -,413 -,449 -,434 -,386 -,347	368 379 417 473 538 518 432 311	272 315 371 438 540 608 581 508		132 133 134 135 136 137 138 139 140	3.0 10.0 25.0 41.0 52.5 62.5 72.5 83.4 94.0	.204 .076 .008 008 .011 .056 .174 	.172 .048 016 029 006 .062 .183	.141 .020 041 051 051 .072 .183	.116 .002 054 060 028 .066 .189	.067 037 081 080 043 .074 .185 	
G65 66 67 68 69 70 71 72 73 74 75	2.0 6.0 15.0 27.5 40.0 50.0 67.5 77.5 87.2 96.8	581 457 378 362 377 371 333 302 306 	549 470 414 412 439 386 350 330 68	508 472 432 457 523 528 478 433 314 054	485 480 449 473 511 526 495 422 286	383 422 427 489 573 606 573 520 258 		141 142 143 144 145 146 147 148 149	3.0 10.0 25.0 41.0 52.5 62.5 72.5 84.0 92.0	.253 .098 .033 .018 .046 .074 .198 .268	.229 .075 .017 .010 .042 .063 .203 .287	.288 .054 .001 .035 .063 .296 .296	.201 .047 002 003 .033 .063 .202 .302	.163 .014 024 016 .020 .064 .201 .300	
H76 77 78 79 80 81 82 83 84 85	2.0 6.0 15.0 27.5 40.0 50.0 67.5 88.3 94.2	568 417 335 319 323 306 261 202 034 023	643 483 391 375 380 357 310 238 013	674 601 501 487 449 419 361 150 .019	631 593 514 523 493 473 444 215 .048	557 560 513 436 452 419 322 192 012 .009		150 151 152 153 154 155 156 157	3.0 10.0 25.0 41.0 52.5 62.5 72.5 84.9	.123 .046 025 007 .031 .161 .086	.146 .033 038 007 .001 .172 .110	.141 .017 057 .002 .012 .211 .133	.151 .017 065 000 .014 .193 .137	.147 .007 085 021 009 .178 .091	

TABLE 52

 $\left[\Lambda = 45^{\circ}, \, \delta_{a_{11}} = 10.0^{\circ}, \, \alpha = 7^{\circ}\right]$

Γ			tur				CONFID	ENTIA	L		I America	ompies			
			UPPE	SURPAC				-	I		LOWER	SURPAC:			
тире	Per- cent	0.60	0.80	0.89	o cos	0.96		Tube	Per-	0.60	0.80	0.89		0.06	
A 1 2 3 4 5 6 7 8 9 10	2.0 6.0 15.0 27.5 40.0 59.0 67.5 77.5 87.5 96.0	-1.089 615 430 351 	-1.172 617 437 369	-1.005 553 396 334 	-0.883 525 279 301	-0.779 481 316 264		86 87 88 89 90 91 92 93	3.0 10.0 25.0 41.0 52.5 62.5 72.5 84.0 94.0	0.60 0.411 .171 .158 	0.413 .182 .164	0.414 .188 .170	0.925 0.419 .193 .176 	0.429 .203 .188	
B12 13 14 15 16 17 18 19 20 21 22	2.0 6.0 15.0 27.5 40.0 50.0 67.5 77.5 88.0 95.3	 508 434 406 387 330 	 528 480 488 466 435 			- 408 - 381 - 382 - 416 - 393 		95 96 97 98 99 100 101 102	3.0 10.0 25.0 41.0 52.5 62.5 72.5 86.3 94.5	.404 .227 .118 .046 .026 	.395 .217 .113 .042 .020	.389 .213 .108 .035 .009	.388 .213 .107 .031 .001	•393 .220 .117 .040 .006	
23 24 25 26 27 28 29 30 31 33	2.0 6.0 15.0 27.5 40.0 59.0 67.5 77.5 88.0 95.3	-1.381 982 581 481 464 344 263 196 113 161	-1.418 -1.121 654 689 559 447 433 326 242 131	-1.158 -1.118 564 568 602 590 641 583 532 308 111	-1.051 .996 507 525 561 575 600 547 549 426 217	- 960 - 885 - 479 - 5128 - 553 - 5505 - 509 - 419 - 217		104 105 106 107 108 109 110 111	3.0 10.0 25.0 41.0 52.5 62.5 72.5 85.1 94.6	.407 .238 .106 .031 .010 .011 .034 .067 .098	.393 .223 .093 .020 007 001 .024 .067	.374 .205 .077 003 031 026 003 .038	.368 .198 .068 017 048 043 021 .014	.367 .199 .069 016 049 045 025 .016	
D34 35 36 37 38 39 40 41 42 43	2.0 15.0 27.5 40.0 50.0 67.5 77.5 87.5 94.2	-1.512 548 518 458 386 331 231 136 050	-1.519 729 622 546 442 274 253 162 055 016	-1.264 896 660 737 773 587 412 238 142 107	-1.124 908 599 681 723 710 696 375 237 191	-1.011 837 560 626 676 675 672 430 250		113 114 115 116 117 118 119 120 121	3.0 10.0 25.0 41.0 52.5 62.5 72.5 87.4 94.2	.422 .265 .117 .040 .014 .020 .047 .070	.400 .244 .100 .023 002 .005 .039 .093	.372 .225 .073 008 036 025 .011 .066	.354 .200 .053 034 066 055 022 .020	.345 .192 .046 042 059 065 031 .021 038	,
8 44 45 46 47 48 50 51 52 53	2.0 6.0 15.0 27.5 40.0 59.0 67.5 77.5 88.5 95.5	-1,169 -1,149 -1,051 -,591 -,428 -,377 -,320 -,247 -,153 -,006	-1.352 -1.142 632 480 412 332 256 168 042	-1.304 -1.253 -1.137 784 758 741 342 265 207 144 101	-1.175 -1.145 -1.024 841 715 795 729 392 318 256 206	-1.058 -1.035 924 816 655 743 782 550 353 294 250	,	122 123 124 125 126 127 128 129 130 131	3.0 10.0 25.0 41.0 52.5 62.5 72.5 78.0 85.3 94.1	.443 .279 .146 .080 .070 .061 .093 .112 .145	.433 .265 .134 .067 .056 .043 .078 .105 .143	.422 .249 .122 .057 .045 .033 .077 .105 .148	.386 .211 .082 .011 002 018 .031 .061 .076	.367 .190 .062 015 032 057 .001 .031 .083 .053	,
	2.0 6.0 15.0 27.5 49.0 50.0 59.0 67.5 86.5 94.6	-1.224 -1.222 -1.002 652 490 403 331 .275	-1.199 -1.207 -1.138 863 542 414 336 273	-1.355 -1.291 -1.160 -1.080 779 459 273 223	-1.221 -1.167 -1.059 979 787 796 532 343	-1.097 -1.049 960 886 775 750 801 591	. ,	132 133 134 135 136 137 138 139 140	3.0 10.0 25.0 41.0 52.5 62.5 72.5 83.4 94.0	.450 .293 .162 .106 .092 .118 .188	.439 .283 .151 .096 .080 .109 .187 	.427 .267 .143 .089 .079 .114 .198	.386 .225 .100 .045 .037 .079 .167	.361 .196 .071 .014 .008 .054 .147	
G65 66 67 68 69 70 71 72 73 74 75	2.0 6.0 15.0 27.5 40.0 50.0 67.5 77.5 87.2 96.8	1.0998 1.0998 1.0998 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.0	858 846 839 774 702 621 514 395 275	-1.380 -1.293 -1.215 -1.065 587 553 304 125 125 	-1.254 -1.194 -1.090 -1.008 753 611 578 260 182 	-1.137 -1.089 -1.003 955 889 825 786 617 226		141 142 143 144 145 146 147 148 149	3.0 10.0 25.0 41.0 52.5 62.5 72.5 84.0 92.0	.454 .290 .168 .102 .095 .120 .174 .239	.448 .280 .158 .094 .088 .107 .175 .250	.446 .275 .160 .102 .102 .139 .190 .270	.409 .233 .120 .057 .056 .103 .154 .240	.378 .198 .085 .024 .024 .067 .128 .218	
H76 77 78 79 80 81 82 83 84 85	2.0 6.0 15.0 27.5 40.0 50.0 59.0 67.5 88.3 94.2	647 627 608 556 425 344 160 129	-1.066 708 482 468 420 389 365 347 281 256	- 569 - 563 - 559 - 553 - 500 - 457 - 432 - 413 - 322 - 262	540 540 537 517 466 429 410 396 340 310	726 735 665 664 536 471 425 394 363 355		150 151 152 153 154 155 156 157	3.0 10.0 25.0 41.0 52.5 62.5 72.5 84.9	.247 .174 .056 .017 .046 .102	.267 .150 .026 .016 .016 .070 087	.322 .187 .052 .009 .044 .043	.296 .153 .015 031 .005 .070 092	.277 .129 016 059 020 .053 126	

TABLE 53

 $\begin{bmatrix} \Lambda = -30^{\circ}, \delta_{\mathbf{a}_{\mathbf{n}}} = -10.0^{\circ}, \alpha = -2^{\circ} \end{bmatrix}$ CONFIDENTIAL

			UPPE	R SURPA	CE		CONFIDE 	NIIAL			LOWER	SURPAC	Е	
	Per-				Number				Per-	Γ -		Mach N	umber	
Tube	cent chord	0,60	0.80	0.85	0.89			Tube	cent chord	0.60	0.80	0.85	0.89	
A 1 2 3 4 5 6 7 8 9 10	2.0 6.0 15.0 27.5 40.0 50.0 59.0 67.5 77.5 87.5 96.0	 -0.181 152 099	 -0.221 176 084	 -0.239 180 .084	 -0.239 147 078			86 87 88 89 90 91 92 93	3.0 10.0 25.0 41.0 52.5 62.5 72.5 84.0 94.0		 -0.096 068 015	 -0.113 051 002	 -0.100 039 .024	
B12 13 14 15 16 17 18 19 20 21 22	2.0 6.0 15.0 27.5 40.0 50.0 67.5 77.5 88.0 95.3	.476 .156 063 177 229 227 197 132 049	.509 .193 083 236 299 280 244 167 064 .055	.504 .173 109 277 360 340 277 170 068 .040	.487 .160 130 327 464 443 389 122 047 .063			95 96 97 98 99 100 101 102 103	3.0 10.0 25.0 41.0 52.5 62.5 72.5 86.3 94.5		-1.038 799 541 316 212 126 033 .057	921 751 629 483 270 155 049 .056 .120	984 -1.028 976 819 351 131 025 .089	
023 24 25 26 27 28 29 30 31 32 33	2.0 6.0 15.0 27.5 40.0 50.0 59.0 67.5 77.5 88.0 95.3	.456 .172 028 152 221 198 201 145 068 .043	.503 .213 017 182 279 235 252 192 078 .049	.508 .221 016 199 331 358 292 232 082 .033	.501 .218 018 213 378 447 385 313 085			104 105 106 107 108 109 110 111 112	3.0 10.0 25.0 41.0 52.5 62.5 72.5 85.1 94.6		-1.044 750 506 373 294 190 067 .035	932 883 701 431 276 208 074 .028	770 767 767 697 619 489 032 .060	
D34 35 36 37 38 39 40 41 42 43	2.0 15.0 27.5 40.0 50.0 59.0 67.5 77.5 87.5 94.2	.396 020 132 210 219 138 102 .023	.454 005 148 254 271 160 115 .019	.452 003 158 283 306 282 094 .002	.452 005 170 312 358 325 114 017			113 114 115 116 117 118 119 120 121	3.0 10.0 25.0 41.0 52.5 62.5 72.5 87.4 94.2		945 689 495 420 322 198 090 .044	908 794 634 528 352 226 096 .012	756 708 678 678 692 266 125 .009	
44 45 46 47 48 49 50 51 52 53	2.0 6.0 15.0 27.5 40.0 50.0 67.5 77.5 88.5 95.5	.456 .187 007 113 179 182 155 116 079 .133	.513 .229 .009 124 213 218 187 152 067 .136	.512 .235 .015 126 223 230 199 168 051 .125	.516 .244 .022 125 230 239 206 177 053 .126			122 123 124 125 126 127 128 129 130 131	3.0 10.0 25.0 41.0 52.5 62.5 72.5 78.0 85.3 94.1	-0.667 -397 -350 -312 -142 -185 -098 -043 -070	832 500 487 430 314 234 125 060 .010	922 686 568 534 330 244 131 062 .009	808 671 595 605 302 102 044 .019	
755 56 57 58 59 60 61 62 63 64	2.0 6.0 15.0 27.5 49.0 50.0 59.0 67.5 86.5 94.6	.474 .202 .010 109 153 142 099 069 .117	.523 .239 .022 107 186 173 122 102 .115 .046	.520 .244 .027 110 195 131 113 101 .115 .046	.523 .250 .032 111 206 191 137 120 .124			132 133 134 135 136 137 138 139 140	3.0 10.0 25.0 41.0 52.5 62.5 72.5 83.4 94.0	673 401 354 352 284 219 173 103	832 545 474 439 371 271 207 110 .016	870 671 563 538 412 293 221 115 .016	755 662 545 645 385 237 129 . 034	
665 666 67 68 69 70 71 72 73 74 75	2.0 6.0 15.0 27.5 40.0 50.0 59.0 67.5 77.5 87.2 96.8	.484 .209 .026 076 129 118 063 039 .220	.526 .239 .034 096 167 152 093 076 .238 	.524 .246 .037 182 162 105 093 241 053	.529 .254 .042 104 195 171 116 106 .245			141 142 143 144 145 146 147 148 149	3.0 10.0 25.0 41.0 52.5 62.5 72.5 84.0 92.0	682 404 351 388 285 202 133 019	779 522 459 426 366 283 240 159 037	780 553 522 505 398 321 258 176 043	703 540 525 581 524 367 270 201 048	
80 81 82 83 84	2.0 6.0 15.0 27.5 40.0 50.0 59.0 67.5 88.3 94.2	.408 .153 .003 100 151 153 102 020 .087	.457 .186 .010 123 195 206 139 030	.463 .199 .017 127 228 160 049	.476 .215 .028 126 223 252 177 052			150 151 152 153 154 155 156 157	3.0 10.0 25.0 41.0 52.5 62.5 72.5 84.9	567 325 274 289 259 193 165 009	665 372 329 366 332 249 203 038	677 442 336 407 377 271 221 050	628 483 303 395 428 310 240 066	
85	34.2					NFIDEN	TIAL	Ш			JANAN N	مريكي	لـــ حر	

TABLE 54

 $\left[\Lambda = -30^{\circ}, \delta_{a_{\Omega}} = -10.0^{\circ}, \alpha = 0^{\circ}\right]$

							CONFI	ENTIA	L		f osme	опраза	P		
	/		UPPER	SURPA	umber			-	T	Г	LOWER	SURPAC Mach N			
Tube	Per- cent							Tube		<u> </u>			г	Γ	
A 1 2 3 4 5 6 .7 .8 9 10 11	2.0 6.0 15.0 27.5 40.0 50.0 59.0 67.5 77.5 87.5 96.0	0.60 -0.210 171 101	0.80 -0.240 176 100	0.85 -0.236 177 100	0.89 	0.925 -0.639 407 199 	0.96 -0.654 769 679	. 86 87 88 89 90 91 92 93	3.0 10.0 25.0 41.0 52.5 62.5 72.5 84.0 94.0	0.60 -0.114 068 018		0.85 	0.89 -0.112 053 .004 	0.925	
B12 13 14 15 16 17 18 19 20 21 22	2.0 6.0 15.0 27.5 40.0 50.0 59.0 67.5 77.5 88.0 95.3	007 178 244 289 299 276 234 150 075 .040	.054 195 318 381 379 333 279 166 072 .043	.093 180 364 502 458 385 245 155 068 .045	.131 143 377 522 641 590 438 087 031	.164 107 334 491 628 693 715 614 156	.186 077 310 454 589 684 758 746 444 169	95 96 97 98 99 100 101 102	3.0 10.0 25.0 41.0 52.5 62.5 72.5 86.3 94.5	282 214 223 214 177 108 023 061 129	446 327 307 271 220 117 025 .069	495 490 380 293 205 124 026 .072 .139	466 576 562 450 100 082 004 .089	393 534 580 641 614 343 074 090 175	313 455 519 580 667 311 165 007
23 24 25 26 27 28 29 30 31 32 33	2.0 6.0 15.0 27.5 40.0 50.0 59.0 67.5 77.5 88.0 95.3	.089 095 211 280 309 264 249 193 079 .031	.157 070 238 355 402 325 324 252 084 034	.192 048 234 389 494 415 402 187 086	.223 021 216 378 537 577 535 406 085	.250 .009 186 358 513 661 577 294 062	.270 .034 154 326 482 623 702 615 297 160	104 105 106 107 108 109 110 111 112	3.0 10.0 25.0 41.0 52.5 62.5 72.5 85.1 94.6	201 211 229 216 191 144 013 .047	277 297 320 292 250 203 030 .046 .114	305 352 398 351 302 176 035 .045	276 354 443 490 443 151 012 .064 .124	228 300 437 521 636 586 185 .002	156 237 383 465 618 586 451 112 046
D34 35 36 37 38 39 40 41 42 43	2.0 15.0 27.5 40.0 50.0 67.5 77.5 87.5 94.2	.100 188 250 299 285 198 049 .008	.162 202 300 375 379 241 058 .001	.187 201 319 422 415 316 074 008	.201 193 331 453 470 393 124 037	.222 176 326 477 551 456 188 092 017	.240 151 302 454 571 531 154 080 009	113 114 115 116 117 118 119 120	3.0 10.0 25.0 41.0 52.5 62.5 72.5 87.4 94.2	214 191 229 231 197 134 042 .054	285 259 316 316 264 177 061 .045	311 289 377 381 312 195 073 .031	298 283 414 511 429 183 086 .021	253 251 407 521 603 495 111 016	190 200 360 475 566 518 113 017
E 4.4 4.5 4.6 4.7 4.8 4.9 5.0 5.1 5.2 5.3 5.4	2.0 6.0 15.0 27.5 40.0 50.0 67.5 77.5 88.5 95.5	.144 047 164 224 260 241 199 166 034 .111	.210 019 175 262 314 288 240 215 052 .106	.239 .000 172 275 339 313 264 245 065 .058	.263 .020 164 278 354 329 281 262 076 .058	.278 .034 157 284 379 348 302 260 093 .093	.275 .042 151 293 430 448 405 191 111	122 123 124 125 126 127 128 129 130	3.0 10.0 25.0 41.0 52.5 62.5 72.5 78.0 85.3 94.1	191 191 230 240 194 151 080 013 .047	235 244 309 321 256 202 084 021 .047	251 265 360 377 303 251 058 017 .052 .098	245 263 387 466 383 331 021 010 .056 .100	208241384501476447144 .025 .075	121 166 331 455 533 481 467 381 036 .089
F55 56 57 58 59 60 61 62 63 64	2.0 6.9 15.9 27.5 49.0 50.0 59.0 67.5 86.5 94.6	.168 024 143 197 226 197 149 129 .107	.222 004 155 235 276 234 191 154 .113	.245 .009 156 251 301 253 215 156 .105	.265 .025 150 259 317 264 232 .327 .111	.276 .038 146 273 348 286 259 101 .114	.276 .044 141 284 382 370 382 055	132 133 134 135 136 137 138 139 140	3.0 10.0 25.0 41.0 52.5 62.5 72.5 83.4 94.0	234 206 244 257 241 197 170 159 .047	267 248 312 337 308 254 222 219	275 260 350 391 354 298 257 134 .054	268 251 375 451 416 357 299 119	225 220 379 475 501 443 407 129	135 151 328 431 536 503 485 367
G65 66 67 68 69 70 71 72 73 74 75	2.0 6.0 15.0 27.5 40.0 50.0 59.0 67.5 77.5 87.2 96.8	.201 004 113 173 197 166 111 097 .187	.237 .005 -132 215 250 205 162 150 .197 	.255 .016 136 234 275 222 187 176 .203 089	.273 .030 135 247 297 236 206 189 .207 	289 .046 .128 .1261 .2613 .243 .243 .243 .284 .284	.294 .056 117 257 389 328 227 .111	141 142 143 144 145 146 147 148 149	3.0 10.0 25.0 41.0 52.5 62.5 72.5 84.0 92.0	216 220 250 267 251 216 199 169 003	214 249 305 330 308 262 237 200 007	203 256 332 366 347 304 271 227 024	182 250 346 405 375 337 306 219 024	143 222 333 443 425 417 365 212 024	064 158 284 4401 489 442 422 289 117
H76 77 78 79 80 81 82 83 84 85	2.0 6.0 15.0 27.5 40.0 50.0 59.0 67.5 88.3 94.2	.147 039 117 181 206 190 123 032 .083	.191 026 131 221 261 246 161 053	.217 009 130 236 290 281 273 064	.242 .013 119 242 310 319 198 071	.269 .056 102 238 366 246 075	.284 .060 078 230 326 394 359 202 .055	150 151 152 153 154 155 156 157	3.0 10.0 25.0 41.0 52.5 62.5 72.5 84.9	199 169 194 241 229 180 151 .010	202 173 217 291 160 178 005	202 169 223 317 314 235 193 .022	197 159 216 332 361 248 023	180 139 198 314 377 309 215 035	119 090 150 288 359 339 272 065

TABLE 55

 $\left[\Lambda = -30^{\circ}, \delta_{a_n} = -10.0^{\circ}, \alpha = 2^{\circ}\right]$

			UPPRI	SURPA			CONF	IDENTI	AL —		LOWER	SURFAC	E		
	Per-				*umber		-		Per-			Mach N	-	•	٠.
Тире	cent chord	0.60	0.80	0.85	0.89	0.925	0.96	Tube	cent	0.60	0.80	0.85	0.89	0.925	0.96
A 1 2 3 4 5 6 7 8 9 10 11	2.0 6.0 15.0 27.5 40.0 50.0 59.0 67.5 77.5 87.5 96.0	 -0.231 185 119		 -0.197 152 084	 -0.258 137 048	-0.593 367 252	 -0.738 828 686	86 87 88 89 90 91 92 93 94	3.0 10.0 25.0 41.0 52.5 62.5 72.5 84.0 94.0	 -0.084 049 003	-0.113 -0.052 001	-0.127 -0.52 .000	 -0.130 052 .002	 -0.173 051	 -0.594 367 117
B12 13 14 15 16 17 18 19 20 21 22	2.0 6.0 15.0 27.5 40.0 50.0 67.5 77.5 88.0 95.3	839 625 454 401 365 322 256 164 089	773 838 823 593 355 270 174 079	586 707 832 857 769 403 141 107 041 .053	448 600 723 850 823 769 514 215 052 .103	288 463 618 753 803 794 546 309 043	190 374 510 669 725 777 844 795 517 308	95 96 97 98 99 100 101 102 103	3.0 10.0 25.0 41.0 52.5 62.5 72.5 86.3 94.5	.226 .036 102 145 128 076 002 .073 .135	.203 .004 155 195 166 096 005 .081	.158 031 199 230 189 107 006 .085	.124 062 257 282 217 111 005 .090	.'068 - 103 - 310 - 488 - 439 - 194 .001 .083 .146	.075 087 287 478 570 523 214 134 031
23 24 25 26 27 28 29 30 31 32 33	2.0 6.0 15.0 27.6 40.0 50.0 67.5 77.5 88.0 95.3	461 434 424 417 402 335 310 181 099	407 479 540 565 449 184 102 019	302 420 523 631 722 617 635 136 071 .027	213 354 469 611 708 720 665 524 130	097 261 393 548 663 733 836 753 311 132	018 188 323 481 591 673 800 713 347 214	104 105 106 107 108 109 110 111	3.0 10.0 25.0 41.0 52.5 62.5 72.5 85.1 94.6	.205 .024 094 134 131 086 042 .070	.204 .010 133 163 174 120 071 .138	.181 011 164 222 204 149 043 .068 .138	.165 026 196 277 250 197 012 .065	.140 051 233 380 396 337 112 .008	.148 032 210 368 494 424 123 096 055
D34 35, 36 37 38 39 40 41 42 43	2.0 15.0 27.5 40.0 50.0 59.0 67.5 77.5 87.5 94.2	379 382 382 392 355 266 098 007	330 462 499 527 472 358 118 017	263 467 543 601 558 439 141 037	193 434 543 649 635 498 182 070	096 371 500 624 721 588 215 116 031	019 308 438 564 663 565 416 078	113 114 115 116 117 118 119 120	3.0 10.0 25.0 41.0 52.5 62.5 72.5 87.4 94.2	.162 .023 099 147 132 094 019 .073	.159 .011 138 198 180 130 031 .070	.143 003 165 235 212 160 045 .061	.133 011 192 279 252 193 060 .047	.110 024 220 376 367 304 069 .005	.118 005 201 364 451 396 045 .013
E44 45 46 47 48 49 50 51 52 53 54	2.0 6.0 15.0 27.5 40.0 50.0 59.0 67.5 77.5 88.5 95.5	326 337 354 353 354 313 267 191 080 .080	275 372 424 442 444 388 350 173 104 .071	211 348 437 477 489 428 396 187 122 .058	146 304 418 501 521 458 435 179 134 .050	080 252 380 496 590 528 503 178 136 .026	003 184 319 447 559 547 534 297 143 045 055	122 123 124 125 126 127 128 129 130	3.0 10.0 25.0 41.0 52.5 62.5 72.5 78.0 85.3 94.1	.173 .017 107 157 131 104 056 024 .074	.187 .017 136 202 170 135 092 028 .029 001	.176 .005 162 237 200 159 120 017 .079	.171 002 182 277 230 185 145 .000 .077	.174 .008 193 335 306 248 177 .028 .078	.178 .019 183 -).344 423 364 129 .056 .074
P55 56 57 58 59 60 61 62 63 64	2.0 6.0 15.0 27.5 49.0 50.0 59.0 67.5 86.5 94.6	287 316 326 323 317 269 229 047 .087	253 347 391 406 394 334 315 051 .076	198 334 407 444 371 355 047 .073	- 139 - 3399 - 3464 - 384 - 384 - 384 - 589 - 649	079 255 360 476 526 479 395 087 .070	004 189 300 429 482 465 376 270 065 .012	132 133 134 135 136 137 138 139 140	3.0 10.0 25.0 41.0 52.5 62.5 72.5 83.4 94.0	.137 .001 120 174 180 151 134 151	.158 006 145 218 225 186 162 187 .045	.151 001 165 253 258 214 185 208 .042	.150 .000 178 287 293 242 210 211	.159 .009 179 319 361 295 263 232 .047	.168 .024 -168 -323 -436 -408 -369 -311 -008
G65 66 67 68 69 70 71 72 73 74	2.0 6.0 15.0 27.5 40.0 50.0 59.0 67.5 77.5 87.2 96.8	217 276 281 286 279 229 186 .003 .150 	197 311 343 361 350 287 264 .005 .156 	155 301 365 401 383 320 304 015 159 085	105 274 361 431 418 355 343 014 .162 	056 237 328 429 465 417 415 113 .129 098	.014 177 271 381 459 402 402 346 128 113	141 142 143 144 145 146 147 148 149	3.0 10.0 25.0 41.0 52.5 62.5 72.5 84.0 92.0	.133 024 134 193 199 176 169 159	169 012 152 229 235 207 195 192 .000	.172 015 168 254 261 232 213 227 030	.180 010 176 273 285 264 227 234 042	.197 .006 172 306 314 279 251 260 048	.211 .025 153 302 398 372 312 278 075
H76 77 78 79 80 81 82 83 84 85	2.0 6.0 15.0 27.5 40.0 50.0 59.0 67.5 88.3 94.2	203 271 253 269 263 230 151 053 .070	173 293 296 333 336 294 192 076 .063	130 274 306 361 375 336 217 091	080 241 293 385 396 395 238 058 058	035 266 262 378 441 444 325 118 .055	.028 151 214 334 422 465 424 245 .021	150 151 152 153 154 155 156 157	3.0 10.0 25.0 41.0 52.5 62.5 72.5 84.9	.108 007 106 187 191 156 140	.141 .015 107 216 230 178 161	.141 .019 112 237 258 192 178 .008	.150 .030 107 247 293 207 185 003	.030 .052 088 242 318 254 189 011	.185 .074 065 223 304 306 261 045

TABLE 56

 $\left[\Lambda = -30^{\circ}, \delta_{6_{11}} = -10.0^{\circ}, \alpha = 4^{\circ}\right]$

			UPPER	SURFAC	E		- CONFI	DEN I	ITIA	L —		LOWER	SURFACE	3		
	Per-			Mach N	umber					Per-			Mach Nu	mber		
Tube	cent chord	0.60	0.80	0.85	0.89	0.925	0.96	T	ube	cent	0.60	0.80	0.85	0.89	0.925	0.96
A 1 2 3 4 5 6 7 8 9 10	2.0 6.0 15.0 27.5 40.0 50.0 67.5 77.5 87.5 96.0	 -0.227 192 132	 -0.252 173 112	 -0.505 435 351		 -0.432 398 367	 -0.803 793 511		86 87 88 89 90 91 92 93 94	3.0 10.0 25.0 41.0 52.5 62.5 72.5 84.0 94.0	 -0.054 030 .008	 -0.081 041 .007	 -0.119 069 025	 -0.159 094 055	 -0.211 098 058	 -0.427 314 131
B12 13 14 15 16 17 18 19 20 21	2.0 6.0 15.0 27.5 40.0 50.0 59.0 67.5 77.5 88.0 95.3	-1.769 -1.019 766 523 428 363 280 177 093 .017	-1.274 -1.175 928 654 625 458 315 203 098 .012	-1.109 -1.001 681 598 510 444 382 288 196 072	881 934 782 691 629 481 423 354 279 176	- 008 - 008 - 005 - 005	570 696 784 858 856 886 939 888 658 470]	95 96 97 98 99 100 101 102 103	3.0 10.0 25.0 41.0 52.5 62.5 72.5 86.3 94.5	.556 .241 .010 077 082 046 .016 .080	.516 .216 032 124 120 070 .007 .082 .139	.482 .188 066 165 157 099 016 .057 .104	.440 .158 111 225 208 133 039 .036 .076	.396 .130 155 319 331 232 069 .018	.388 .131 154 327 378 339 184 144 077
C23 24 25 26 27 28 29 30 31 32 33	2.0 6.0 15.0 27.6 40.0 50.0 59.0 67.5 77.5 88.0 95.3	-1.222 895 641 556 493 405 332 220 120 004	950 -1.051 942 856 701 450 368 239 124 014	725 862 866 893 808 599 409 157 098 005	563 721 751 819 835 714 733 584 081 027	425 590 634 720 808 794 882 814 331 227	324 485 537 632 731 789 827 761 387 308		104 105 106 107 108 109 110 111	3.0 10.0 25.0 41.0 52.5 62.5 72.5 85.1 94.6	.502 .227 .033 057 075 046 .006 .087 .136	.487 .220 .010 090 114 072 022 .100 .137	.466 .204 012 125 147 099 051 .080	.436 .181 041 169 198 140 097 .061	.408 .159 068 222 281 225 173 .000	.404 .165 062 237 277 240 186 049 029
D34 35, 36 37 38 39 40 41 42 43	2.0 15.0 27.5 40.0 50.0 67.5 77.5 87.5 94.2	-1.025 591 513 483 416 312 130 029 .036	880 779 705 676 569 471 149 034 .025	680 787 810 820 760 412 147 025 .043	537 692 755 858 842 640 259 066	413 586 667 780 782 681 475 101 007	319 496 589 702 740 665 591 270		113 114 115 116 117 118 119 120 121	3.0 10.0 25.0 41.0 52.5 62.5 72.5 87.4 94.2	.447 .210 .024 062 070 043 .004 .081	.438 .208 .006 096 107 068 009 .123 .102	.421 .198 012 123 134 097 015 .089	.394 .180 037 163 178 131 043 .071	.368 .162 065 216 227 180 076 .034 .038	.364 .170 057 238 280 196 044 .049
E 44 45 46 47 48 49 50 51 52 53 54	2.0 6.0 15.0 27.5 40.0 50.0 67.5 77.5 88.5 95.5	984 725 558 443 373 227 213 213 020 031	889 969 760 643 559 451 353 254 138	732 863 833 823 743 560 340 281 154 .013	582 730 731 787 761 741 494 241 142 034 035	457 616 633 710 748 707 651 295 168 124 144	302 466 501 597 660 605 609 484 317 226 159		122 123 124 125 126 127 128 129 130	3.0 10.0 25.0 41.0 52.5 62.5 72.5 78.0 85.3 94.1	.454 .203 .016 070 067 059 014 .014 .048	.466 .216 .008 097 095 081 032 001 .042 .125	.469 .222 .003 114 113 099 046 014 .052 .126	.455 .221 010 140 139 120 066 037 .055 .117	.441 .372 023 176 176 157 102 071 .037 .089	.402 .185 049 219 274 258 201 170 .055 .100
F55. 56. 57. 58. 59. 60. 61. 62. 63. 64.	2.0 6.0 15.0 27.5 49.0 50.0 59.0 67.5 86.5 94.6	910 672 525 445 323 230 120 -057 -048	871 913 700 600 525 390 267 137 .051	731 831 813 762 673 457 261 142 .045	591 707 721 760 721 590 414 183 .040	461 592 629 687 668 502 463 341 054 017	301 447 501 581 570 561 519 500 068 034		132 133 134 135 136 137 138 139 140	3.0 10.0 25.0 41.0 52.5 62.5 72.5 83.4 94.0	.427 .188 .003 089 116 104 099 153 .043	.446 .209 .000 113 148 133 124 078	.453 .217 003 127 167 152 142 177 .036	.443 .213 010 147 195 171 163 193 .024	.430 .209 018 170 232 212 195 228 002	.394 .187 038 208 286 286 340 066
G65 66 67 68 69 70 71 72 73 74 75	2.0 6.0 15.0 27.5 40.0 50.0 59.0 67.5 77.5 87.2 96.8	785 602 465 405 360 297 163 063 .040	794 807 628 536 476 390 182 074 114	682 800 729 660 574 516 182 077 .103 	552 687 681 666 594 581 432 085 .114	334 577 597 625 546 537 527 360 033	287 442 479 534 526 495 511 436 319 		141 142 143 144 145 146 147 148 149	3.0 10.0 25.0 41.0 52.5 62.5 72.5 84.0 92.0	.406 .156 020 114 139 130 140 140	.442 .185 017 132 163 170 163 180 .005	.455 .197 014 141 177 142 178 207 002	.453 .200 015 152 193 141 186 227 011	.448 .200 019 167 211 176 204 261 020	.423 .186 030 202 286 242 205 311 034
H76 77 78 79 80 81 82 83 84 85	2.0 6.0 15.0 27.5 40.0 50.0 59.0 67.5 88.3 94.2	653 539 400 357 322 272 180 077 .058	674 645 495 458 419 351 230 107 .047	614 689 522 555 476 429 270 133 .052	503 607 507 531 551 487 307 135 030	396 514 474 488 545 555 434 186 . 022	261 397 387 422 503 531 472 331 014		150 151 152 153 154 155 156 157	3.0 10.0 25.0 41.0 52.5 62.5 72.5 84.9	.337 .144 013 126 150 126 127 .026	.406 .183 .002 141 179 147 152	.425 .201 .020 148 163 169 .008	.429 .212 .022 152 214 176 159	.429 .221 .028 152' 240 200 191 004	.407 .218 .032 148 247 254 233 030

TABLE 57

 $\left[\Lambda = -30^{\circ}, \ \delta_{\mathbf{a_n}} = -10.0^{\circ}, \ \alpha = 7^{\circ}\right]$ $\longrightarrow CONFIDENTIAL$

		·	UPPE	R SURPA	CE		— CONF	IDENTI	AL		LOWER	SURPAC	CE		
	Per-				Number				Per-			Mach 1			
Tube	cent chord	0.60	0.80	0.85	0.89	0.925	0.96	Tube	chord	0.60	0.80	0.85	0.89	0.925	0.96
A 1 2 3 4 5 6 7 8 9 10 11	2.0 6.0 15.0 27.5 40.0 50.0 59.0 67.5 77.5 87.5 96.0	-0.471 -392 -313	-0.561 560 532	 -0.564 575 565	 -0.572 585 582	 		86 87 88 89 90 91 92 93 94	3.0 10.0 25.0 41.0 52.5 62.5 72.5 84.0 94.0	 	 -0.098 080 062	 -0.138 109 093	-0.182 -0.182 136 116	153	 -0.316 217 106
B12 13 14 15 16 17 18 19 20 21 22	2.0 6.0 15.0 27.5 40.0 50.0 67.5 77.5 88.0 95.3	681 691 699 731 664 562 496 397 295 148	-1.429 -1.316 506 492 504 508 503 447 352 208	-1.279 -1.152499513517518521487404 -;247	-1.153 -1.082 517 529 538 531 531 493 420 262	-1.097 979 716 589 606 611 564 498 388 291	998 982 980 -1.058 -1.039 955 875 792 786 657	95 96 97 98 99 100 101 102 103	3.0 10.0 25.0 41.0 52.5 62.5 72.5 86.3 94.5	.717 .387 .107 019 048 035 .008 .041	.738 .396 .084 064 097 077 028 .003	.716 .379 .059 098 134 109 054 020	.686 .355 .030 141 179 143 076 034 043	.666 .344 .010 184 246 186 092 040 053	.665 .351 .026 175 258 248 147 075 054
C23 24 25 26 27 28 29 30 31 33	2.0 6.0 15.0 27.5 40.0 59.0 67.5 77.5 88.0 95.3	-1.480 -1.311 830 608 547 461 397 279 187 071	-1.471 -1.410 -1.290 795 527 410 342 272 214 112	-1.217 -1.206 -1.106 975 652 544 437 366 332 186	-1.009 -1.049 -1.017 955 807 664 549 452 352 266	841 908 911 928 873 809 701 619 614 486	710 792 808 860 853 866 818 760 624	104 105 106 107 108 109 110 111	3.0 10.0 25.0 41.0 52.5 62.5 72.5 85.1 94.6	.712 .410 .158 .017 023 019 .021 .060	.698 .409 .150 007 058 049 .000 .050	.684 .397 .135 032 092 081 026 .032	.661 .379 .113 066 135 120 057 .021	.647 .369 .102 092 179 168 097 .016	.651 .380 .118 077 172 179 115 042 001
D34 35, 36 37 38 39 40 41 42 43	2.0 15.0 27.5 40.0 50.0 59.0 67.5 77.5 87.5 94.2	-2.000 796 628 544 450 328 140 059 030	-1.377 -1.299 -1.191 773 511 345 	-1.116 -1.120 -1.086 -1.058 911 515 115 076 059	912 981 -1.002 980 884 781 136 125 124	759 864 903 954 917 800 516 171 183	646 762 811 875 849 771 	113 114 115 116 117 118 119 120 121	3.0 10.0 25.0 41.0 52.5 62.5 72.5 87.4 94.2	.684 .406 .162 .034 003 003 .036 .086	.659 .401 .155 .015 027 024 .027 .097	.644 .390 .141 009 055 052 001 .075 .060	.623 .373 .121 039 092 093 037 .052	.607 .363 .108 063 123 130 067 .026 018	.609 .374 .123 049 108 115 054 .034 012
E 44 45 46 47 48 49 50 51 52 53 54	2.0 6.0 15.0 27.5 40.0 50.0 67.5 77.5 88.5 95.5	-1.947 -1.581 823 621 518 413 313 225 134 067	-1.424 -1.438 -1.332 -1.255 753 477 302 204 115 036 031	-1.164	-1.003 -1.061 -1.034 -1.008 965 889 634 250 222 223 230	839 914 904 931 873 860 714 311 244 283 298	663 759 768 812 772 765 678 493 273 294 325	122 123 124 125 126 127 128 129 130 131	3.0 10.0 25.0 41.0 52.5 62.5 72.5 78.0 85.3 94.1	.695 .407 .164 .036 .010 006 .021 .038 .077	.684 .412 .163 .021 009 023 .009 .034 .090	.676 .407 .156 .006 027 043 009 .015 .077	.669 .405 .150 007 043 064 032 089 .047	.659 .399 .142 024 063 089 055 029 .026	.636 .384 .127 056 103 140 117 088 .009
	2.0 6.9 15.0 27.5 49.0 50.0 59.0 67.5 86.5 94.5	-2.044 -1.170 781 589 478 367 255 151 019	-1.425 -1.410 -1.326 -1.205 533 414 273 167 .013	-1.174 -1.188 -1.153 -1.084 822 537 508 432 028 .035	-1.003 -1.033 -1.025 977 738 495 503 491 378 217	840 887 893 762 468 480 484 496	663 736 758 782 734 476 462 478 490 436	132 133 134 135, 136 137 138 139 140	3.0 10.0 25.0 41.0 52.5 62.5 72.5 83.4 94.0	.682 .397 .151 .020 036 048 064 145	.675 .405 044 .008 055 068 084 158	.667 .405 .151 003 072 087 104 180 :032	.661 .403 .150 012 087 100 116 194 .017	.652 .399 .146 023 106 119 135 240 031	.633 .387 .135 042 141 172 172 370 096
69 70 71 72 73 74	2.0 6.0 15.0 27.5 40.0 50.0 59.0 67.5 77.5 87.2 96.8	-1.939 941 697 541 441 334 205 100 .001	-1.391 -1.380 -1.224 -1.164 554 357 226 104 .032	-1.148 -1.163 -1.115 -1.023 955 687 378 129 .070	980 -1.008 990 902 889 835 700 472 .159	820 869 868 836 798 798 744 686 187 	642 724 738 770 707 703 718 653 548 128	141 142 143 144 145 146 147 148 149	3.0 10.0 25.0 41.0 52.5 62.5 72.5 84.0 92.0	.665 .364 .128 009 057 067 101 121 004	.671 .387 .143 013 072 196 123 266 003	.669 .389 .141 020 084 098 138 186 010	.667 .390 .143 025 092 110 111 296	.665 .391 .143 029 100 115 151 257 003	.650 .382 .136 044 123 117 142 390 028
79 80 81 82 83 84	2.0 6.0 15.0 27.5 40.0 50.0 59.0 67.5 88.3 94.2	-1.526 851 594 485 401 363 219 118 .033	-1.288 -1.274 -1.052 650 542 437 285 162 .007	-1.062 -1.083 -1.002 735 673 579 349 194 009	904 942 901 786 690 656 481 235 022	763 810 796 743 658 646 559 314 042	608 672 680 656 610 617 551 411 080	150 151 152 153 154 155 156 157	3.0 10.0 25.0 41.0 52.5 62.5 72.5 84.9	.635 .337 .112 034 084 080 100	.659 .377 .143 035 103 100 134	.660 .384 .149 039 116 152 007	.660 .391 .156 039 125 126 160 015	.661 .399 .167 034 131 130 164 024	.650 .399 .173 029 143 136 163 044

TABLE 58

 $\left[\Lambda = -30^{\circ}, \delta_{\underline{a}_{\underline{n}}} = -5.0^{\circ}, \alpha = -2^{\circ}\right]$

			गुरुक्त	R SURPA	CE C		CONF	DENTI	AL		LOWER	SURFAC	: E	_	
	Per-				lumber.			 -	Per-	Γ-	DOWBI	Mach 1			
Tube	cent	0.60	0.80	0.85	0.89		- 	Tube	cent	0.60	0.80	0.85	0.89	T —	·
A 1 2 3 4 5 6 7 8 9 10	2.0 6.0 15.0 27.5 40.0 50.0 59.0 67.5 77.5 87.5 96.0	 -0.181 153 100	 -0.221 175 083	 -0.236 173 082	 -0.228 1\$1 071			86 87 88 89 90 91 92 93	3.0 10.0 25.0 41.0 52.5 62.5 72.5 84.0 94.0	 -0.124 082 023			 -0.059 014 		
B12 13 14 15 16 17 18 19 20 21 22	2.0 6.0 15.0 27.5 40.0 50.0 67.5 77.5 88.0 95.3	.457 .139 079 184 236 236 200 144 052 .047	.485 .152 105 250 309 292 246 157 067 .046	.477 .150 134 293 369 334 278 159 063 .049	.476 .151 135 334 463 420 374 105 038	-		95 96 97 98 99 100 101 102 103	3.0 10.0 25.0 41.0 52.5 62.5 72.5 86.3 94.5	-1.028 478 317 263 196 127 041 .047	911 765 454 296 205 123 030 .061	959 858 665 343 205 116 021 .072 .128	957 -1.006 949 734 247 042 .029 .110		
C23 24 25 26 27 28 29 30 31 32 33	2.0 6.0 15.0 27.5 40.0 50.0 59.0 67.5 77.5 88.0 95.3	.435 .155 039 163 232 238 207 150 069 .037	.479 .191 036 198 257 258 199 074 044	.484 .198 216 346 346 346 247 247 040	.491 .208 025 219 382 426 383 306 074 .061			104 105 106 107 108 109 110 111 112	3.0 10.0 25.0 41.0 52.5 62.5 72.5 85.1 94.6	679 411 338 272 233 161 056 .034		866 798 604 468 280 179 053 041	739 737 665 644 648 266 028 .074 .123		
D34 35 36 37 38 39 40 41 42 43	2.0 15.0 27.5 40.0 50.0 59.0 67.5 77.5 87.5 94.2	.373 038 147 222 229 186 105 .018	.442 030 171 275 286 186 102 .014 .074	.448 025 180 303 324 273 079 .005	.442 017 180 326 367 303 092 003 .061			113 114 115 116 117 118 119 120 121	3.0 10.0 25.0 41.0 52.5 62.5 72.5 87.4 94.2	621 384 328 236 236 153 064 .076	840 568 451 392 303 187 080 .050	840 690 543 475 347 213 090 .028	721 666 632 671 513 209 112 .028		
E44 45 46 47 48 49 50 51 52 53 54	2.0 6.0 15.0 27.5 40.0 50.0 57.5 77.5 88.5 95.5	.398 .137 050 149 214 213 184 141 090 .134	.454 .178 040 169 257 259 224 183 071 .136	.463 .191 036 176 279 245 245 209 071 .131	.475 .202 022 175 294 302 261 226 070 .123			122 123 124 125 126 127 128 129 130 131	3.0 10.0 25.0 41.0 52.5 62.5 72.5 78.0 85.3 94.1	535 358 320 221 160 081 029 .031	703 458 430 384 280 197 103 041 . 024	801 547 512 467 315 214 116 050 .020	709 580 563 566 482 179 111 042 .022 .076		•
59	2.0 6.0 15.0 27.5 49.0 50.0 59.0 67.5 86.5 94.6	.410 .146 036 137 200 191 154 113 .067	.458 .182 027 156 238 232 185 153 .067	.471 .193 022 163 260 258 205 175 .057	.478 .203 015 166 278 272 215 190 .071	·		132 133 134 135 136 137 138 139 140	3.0 10.0 25.0 41.0 52.5 62.5 72.5 83.4 94.0	557 363 316 287 247 180 111 043	.727 .465 414 380 312 214 137 054	763 551 502 449 363 237 152 062	674 564 550 560 465 244 152 061		
G65 66 67 68 69 70 71 72 73 74 75	2.0 6.0 15.0 27.5 40.0 50.0 59.0 67.5 77.5 87.2 96.8	.420 .154 020 121 180 177 124 090 .121 .087	.466 .187 012 143 225 218 157 135 .140 .098	.348 .199 009 154 250 243 181 177 .147 .086	.489 .211 001 156 269 258 195 178 .141 .090			141 142 143 144 145 146 147 148 149	3.0 10.0 25.0 41.0 52.5 62.5 72.5 84.0 92.0	520 363 310 287 249 170 123 050 .018	626 452 401 366 308 191 151 071	660 490 469 419 359 249 176 085	610 475 501 494 429 268 169 089		
H76 77 78 79 80 81 82 83 84 85	2.0 6.0 15.0 27.5 40.0 50.0 59.0 67.5 88.3 94.2	.360 .111 030 131 186 194 151 093 .036	.408 .148 021 151 228 245 195 127 .076	.293 .164 014 157 250 277 225 155 .018	.441 .183 001 153 256 303 247 170	,		150 151 152 153 154 155 156 157	3.0 10.0 25.0 41.0 52.5 62.5 72.5 84.9	477 296 249 293 229 154 097	567 345 297 332 290 195 118 .026	618 387 321 389 340 225 135 .015	663 408 301 382 416 256 145 070	٠	

TABLE 54

[h = -30°, b_{an} = -5.0°, a = 0°]

ſ·			поон	R SURPA	CP		CONF	DE	NTI/	\L		LOWER	empo.		•	
\vdash	Per-	1	urrs		Number	-		ĺ	<u> </u>	Per-	Γ	POMP2	Mach !			
Tube	cent	0.60	0.80	0.85	0.89	0.925	0.96	ŀ	Tube	cent	0.60	0.80	0.85	0.89	0.925	0.96
A 1	2.0				├ ─			1	86	3.0						
3	6.0 15.0	= =			==	==		ĺ.	87 88	10.0	==					
5	27.5			'	==	==	==		89	41.0 52.5			==	==		
6	50.0	-0.212	-0.237	-0.230	-0.214	-0.529	-0.657		91	62.5	-0.106 063	-0.123 062	-0.123 060	-0.106 047	012	-0.505 224
8 9	67.5	171 103	175 100	173 095	119 051	274 116	659 455		92 93	72.5 84.0	013	006	002	.010	-048	066
10	87.5	==.	==	==					94	94.0				- <i>-</i>		
11	96.0							ĺ	L	Ĺ		ļ		Ĺ		<u></u>
B12	2.0 6.0	068 215	001 234	.032 224	168	129	.172 085		95	10.0	221 184	362 283	406 370	409	476	288 419
14 15	15.0 27.5	270 301	352 398	415 523	385 535	366 503 639	313 461		97 98	25.0 41.0	207 202	285 256	340 280	 386	525 559	490 572
16 17	40.0 50.0	310 284	386 340	470 382	652 590	639 675	- 593 - 685		100	52.5 62.5	168 101	205 109	213 106	101 086	482 073	637 588
18 19	59.0 67.5	238 149	278 165	232 151	455 080	673 407	747 712		101	72.5 86.3	017 .063	016 .074	014	.001	.037	201 014
20	77.5 88.0	076 .037	071 .042	064	022 .077	091 .111	390 102		103	94.5	.132	.144	.148	.159	.187	.096
22	95.3			- -												
C23 24	2.0 6.0	.040 129	.117 102	.148 082	.195 041	.226 009	.259 .028		104 105	3.0 10.0	149 181	211 255	-:223 -:287	229 313	177	-,131
25 26	15.0 27.5	235 296	263	262 410	232 395	201 370	160 332		106	25.0 41.0	208 200	290	345	443	275 393	217 361
27 28	40.0 50.0	323 288	373 420 347	523 433	546 564	529 653	485 622		108	52.5	179	231	313 266	435 378	470 521	588
29 30	59.0	255 201	324	424	555	658	709		110	72.5	132 006	189 018	050 500	189 002	447	537 224
31	67.5 77.5	083	233 086	144 083	392 080	581 220	625 295		1112	85.1 94.6	.051 .120	.054 .120	.057 .123	.071	.078	084 014
32 33	88.0 95.3	.028 	.033 	.036 		.011	134									
D34	2.0	.048	.121	.142	.178	202	.232		113	3.0	158	219	229	242	- 207	164
35 36	15.0 27.5	214 271	229 325	231 349	211 352	189 337	155 305		114 115	10.0	158 207	216 281	232	243 369	216 370	174 340
37 38	40.0 50.0	316 298	397 373	449 432	488 489	489 576	457 577		116 117	41.0 52.5	212 181	288 240	335 276	426 349	479 459	453
39 40	59.0 67.5	230 	269	332	381	497	545 		118 119	62.5 72.5	121	162 049	186 056	201 072	247	536 441
41	77.5 87.5	058 .005	076 .000	081 006	125 029	165 060	198 076		120 121	87.4 94.2	.060	.057	.047 .087	.037.	086 - 043	075 .012
43	94.2	.076	.068	.062	.045	.010	- 002				.090	.090	1001	.068	057	.039
E 44 45	2.0 6.0	.051 116	.106 101	.13 ⁴ 083	.184 047	.212 0 21			122 123	3.0 10.0	103 143	106 178	125 189	137 202	122 189	
46 47	15.0 27.5	217 267	249 327	250 351	229 349	211 346	İ		124 125	25.0 41.0	198 210	256 261	293 310	325 354	337 433	
48 49	40.0 50.0	301 278	378 345	423 386	448 411	480 476			126 127	52.5 62.5	168 128	214 169	246 202	281	358	
50 51	59.0	231 195	292	332	358	430		- 1	128	72.5	077	069	061	233 045	026	
52	77.5	044	265 065	309 078	332 083	272 102		- 1	129 130	78.0 85.3	.060	001 .059	005 057	006 .059	002 -058	
53 54	95.5	.067	.108 .062	.056	.093 .055	.049			131	94.1	-097	.100	.098	.099	.093	i
P55	2.0	.064	.118	.146	.186	.213	┈┤		132	3.0	134	145	151	158	141	
56 57	15.0	097 200	088 228	075 232	042 215	018 199		ı	135 134	10.0 25.0	148 203	175 252	187 293	190 307	174 329	
58 59	27.5 49.0	250 280	306 351	332 393	336 419	336 465	İ	ŀ	135 136	41.0 52.5	231 195	276 244	317 277	358 307	412 367	
60 61	50.0	251 204	311 273	345 302	364 326	424 398			137	62.5 72.5	148	195 157	224 154	262 165	326 171	
62 63	67.5 86.5	175 .046	244 .055	280 .048	278 .054	208 048	1	ı	139 140	83.4 94.0	020	026 .058	032 -055	029 .050	039	
64	94.5	.053	.053	.045	.044	.040		Į					.0,,			
G65 66	2.0	.104 074	.146 068	.170 056	025	.23 ⁴ 001			141 142	3.0	117 163	113 185	108 195	107 199	080 182	
67 68	15.0 27.5	167 224	193 285	200 303	185 307	168 303	1	- 1	143 144	25.0	205 220	252 271	-,277	299	304	İ
69 70	40.0	254 228	320 281	360 314	387 332	435 387		- 1	145	52.5	197	242	302	325 291	332	
71 72	59.0	171	230 222	269 262	294 283	365		- 1	146	62.5 72.5	157 124	200 171	229 199	255 210	340 142	.]
73	77.5	150 .091	.098 - [.092	.099	- 332]		148 149	84.0 92.0	037 .034	047	051 .025	052 .036	065 .020	
74 75	96.8	.080	.083 .082	.054 .058	.085 .077	.084 .071		-						_ [·
H76	2.0	.083	.127	.152	.183	.223			150	3.0	131	129	131	132	-:116	
	15.0	088 154	073 154	059 135	026 154	.001 133		- 1	151 152	10.0	131 167	134 193	202	126 198	107 181	1
79 80	27.5 40.0	215 240	258 299	273 332	270 336	268 345	4		153 154	41.0 52.5	215 195	264 247	295 284	315 332	301 370	
81 82	50.0 59.0	230 177	297 139	333 264	367 273	384 346	f	ı	155 156	62.5 72.5	131 087	167 104	188	203 122	285	- 1
83 84	67.5 88.3	096 .031	131 .018	150 .010	173	236 .009			157	84.9	.046	087	.036	.038	135	
85	94.2						- 1	1	ļ		ł	~	NA!	ر 🛣	-	
							 IFIDENT			· ·			JAN.	ممتر		

TABLE 60

 $\left[\Lambda = -30^{\circ}, \, \delta_{\underline{a}_{\underline{n}}} = -5.0^{\circ}, \, \alpha = 2^{\circ}\right]$ $\longrightarrow \text{CONFIDENTIAL}$

ſ.			UPPE	R SURFAC	E	. •	- CONFI I	DENTI. I	۸L		LOWER	SURPAC	E		
	Per-		-	Mach !	lumber				Per-	<u> </u>		Mach N	umber		
Tube	cent chord	0.60	0.80	0.85	0.89	0.925	0.96	Tube	cent	0.60	0.80	0.85	0.89	0.925	0.96
A 1 2 3 4 5 6 7 8 9 10 11	2.0 6.0 15.0 27.5 40.0 50.0 59.0 67.5 77.5 87.5	-0.237 -0.191 124	 -0.241 181 106	-0.185 144 077	 -0.257 143 055	 -0.479 308 195	 	86 87 88 89 90 91 92 93	3.0 10.0 25.0 41.0 52.5 62.5 72.5 84.0 94.0	 -0.083 045 .001	 -0.104 047 .005	 -0.110 045 .009		 -0.120 041 .009	 -0.464 198 038
B12 13 14 15 16 17 18 19 20 21 22	2.0 6.0 15.0 27.5 40.0 50.0 67.5 77.5 88.0 95.3	- 945 - 682 - 485 - 418 - 381 - 335 - 263 - 171 - 094 - 023	836 890 906 587 384 354 267 173 077 .039	652 763 871 911 798 367 141 100 034 .058	486 628 770 872 838 775 502 252 081 .087	- 332 - 495 - 648 - 771 - 807 - 791 - 729 - 441 - 278 - 015	226 398 547 687 745 784 800 739 444 253	95 96 97 98 99 100 101 102 103	3.0 10.0 25.0 41.0 52.5 62.5 72.5 86.3 94.5	.271 .062 088 135 120 071 .002 .076 .136	.242 .030 137 181 155 089 .000 .085	.207 .006 169 211 173 095 .003 .092 .158	.164 027 223 257 202 104 .002 .097 .168	.116 061 271 401 332 103 .010 .092 .162	.104 060 264 454 505 413 167 038
C23 24 25 26 27 28 29 30 31 33	2.0 6.0 15.0 27.5 40.0 50.0 67.5 77.5 88.0 95.3	535 482 456 439 421 361 329 184 107	460 521 571 636 588 479 270 191 099	359 462 553 664 748 637 634 143 066	248 382 484 629 735 760 769 544 115 .002	133 286 405 559 671 745 815 242 089	049 210 337 493 605 686 808 719 356 201	104 105 106 107 108 109 110 111 112	3.0 10.0 25.0 41.0 52.5 62.5 72.5 85.1 94.6	.242 .049 077 124 122 078 032 .064 .134	.238 .036 111 167 161 107 074 .076	.224 .025 134 195 184 128 070 .079 .148	.203 .007 164 245 225 170 043 .070 .139	.179 013 193 310 319 256 096 .049	.176 009 191 342 407 347 143 086 034
D34 35 36 37 38 39 40 41 42 43	2.0 15.0 27.5 40.0 50.0 59.0 67.5 77.5 87.5 94.2	463 416 410 416 375 297 110 015 054	391 495 529 548 486 383 123 017	323 500 577 641 581 467 143 031	233 452 566 679 701 573 176 072	130 383 509 631 702 589 255 086 .004	049 319 451 575 666 579 464 115 .023	113 114 115 116 117 118 119 120 121	3.0 10.0 25.0 41.0 52.5 62.5 72.5 87.4 94.2	.204 .051 078 129 120 ~.088 006 .053	.196 .040 113 175 161 116 029 .076 .098	.188 .033 131 202 185 135 030 .070	.170 .022 155 241 224 170 050 .055 .072	.151 .010 179 302 273 216 074 .043	.145 .015 180 339 365 304 040 .027
E 44 45 46 47 48 49 50 51 52 53 54	2.0 6.0 15.0 27.5 40.0 50.0 59.0 67.5 77.5 88.5 95.5	449 424 410 397 396 352 302 206 094 056	422 481 518 522 520 457 421 190 122 .071	328 441 517 574 590 523 493 195 138 .059	233 374 473 571 650 582 559 195 135 050	148 307 415 537 640 618 605 344 135 005 004		122 123 124 125 126 127 128 129 130 131	3.0 10.0 25.0 41.0 52.5 62.5 72.5 78.0 85.3 94.1	.240 .058 075 127 104 078 036 006 .085	.262 .057 096 163 126 103 064 015 .088 .113	.249 .058 115 189 158 121 084 014 .085 .108	.236 .049 129 214 176 137 103 004 .083	.229 .048 150 249 214 170 138 004 .070	
F55 56 57 58 59 60 61 62 63 64	2.0 6.0 15.0 27.5 49.0 50.0 59.0 67.5 86.5 94.6	417 399 384 374 369 325 279 127 .021	392 461 479 490 480 418 394 125 .027 .038	311 434 488 540 537 476 457 131 .020 :.030	223 371 446 543 597 530 499 141 .024	141 308 393 513 600 552 494 324 014		132 133 134 135 136 137 138 139 140	3.0 10.0 25.0 41.0 52.5 62.5 72.5 83.4 94.0	.213 .051 080 134 135 101 064 048	.237 .060 098 168 169 128 089 066	.226 .053 115 195 194 147 110 066 .062	.224 .049 126 216 213 154 129 047 .063	.213 .049 138 253 249 193 163 048	
G65 66 67 68 69 70 71 72 73 74 75	2.0 6.0 15.0 27.5 40.0 59.0 67.5 77.5 87.2 96.8	336 353 339 335 292 242 242 114 .060	319 406 419 435 430 388 339 131 .045 .061	- 253 - 386 - 435 - 482 - 480 - 412 - 395 - 180 - 046 - 050	180 336 399 477 526 455 445 204 .053 .069	110 283 357 456 560 492 488 425 .033 .077		141 142 143 144 145 146 147 148 149	3.0 10.0 25.0 41.0 52.5 62.5 72.5 84.0 92.0	.203 .026 092 146 144 115 091 055 .041	.237 .037 091 179 178 145 110 065 .040	.234 .033 123 201 200 163 126 072	.233 .034 131 215 214 186 137 077 .037	.236 .038 140 238 241 210 158 080	
H76 77 78 79 80 81 82 83 84 85	2.0 6.0 15.0 27.5 40.0 59.0 67.5 88.3 94.2	- 276 - 320 - 389 - 302 - 288 - 271 - 199 - 104 - 046	- 254 - 353 - 342 - 374 - 381 - 349 - 260 - 137 - 004	- 203 - 331 - 347 - 397 - 415 - 399 - 302 - 155 - 004	139 287 324 415 421 438 308 174 005	083 246 287 398 456 467 390 217 015		150 151 152 153 154 155 156 157	3.0 10.0 25.0 41.0 52.5 62.5 72.5 84.9	.158 .024 080 159 162 117 077	.192 .045 096 195 204 146 101	.193 .049 090 215 231 161 105 .039	.197 .060 085 226 256 171 114 .038	.208 .075 073 231 309 207 123 .036	

TARTE 63

 $\left[\Lambda = -30^{\circ}, \, \delta_{\mathbf{a}_{\underline{n}}} = -5.0^{\circ}, \, \alpha = 4^{\circ}\right]$

			UPPEF	SURPAG	CE	·	CONFI	DEN I I	ATIA	۱۲ —		LOWER	SURPAC	E		
	Per-				lumber					Per-	:		Mach N	umbe r		
Tube	cent chord	0.60	0.80	0.85	0.89	0.925	0.96		Tube	cent chord	0.60	0.80	0.85	0.89	0.925	0.96
A 1 2 3 4 5 6 7 8 9 10 11	2.0 6.0 15.0 27.5 40.0 50.0 67.5 77.5 87.5 96.0	 -0.228 193 133	-0.330 225 143	 -0.519 461 385	 -0.525 508 464	 -0.417 385 342	 -0.702 575 455		86 67 88 89 90 91 92 93 94	3.0 10.0 25.0 41.0 52.5 62.5 72.5 84.0 94.0	 -0.049 028 .011	 -0.080 041 .004	-0.113 -0.113 067 026	 -0.150 092 056	 -0.181 083 047	 -0.405 250 094
B12 13 14 15 16 17 18 19 20 21 22	2.0 6.0 15.0 27.5 40.0 50.0 59.0 67.5 77.5 88.0 95.3	-1.803 -1.074 786 534 434 366 281 180 095 .014	-1.268 -1.185 861 617 624 488 341 227 117 005	-1.136 -1.003 621 569 487 454 397 303 082	- 944 - 994 - 994	- 735 - 845 - 992 - 936 - 888 - 768 - 519 - 263 - 263	591 793 856 861 879 899 587 436		95 96 97 98 99 100 101 102 103	3.0 10.0 25.0 41.0 52.5 62.5 72.5 86.3 94.5	.572 .253 .017 071 077 041 .017 .080	.532 .229 021 116 115 066 .008 .082	.497 .206 051 152 148 093 013 056	.458 .180 091 203 192 122 035 .066	.430 .161 123 278 276 181 045 .038	.407 .155 131 304 368 330 165 101 027
C23 24 25 26 27 28 29 30 31 32 33	2.0 6.0 15.0 27.5 40.0 50.0 59.0 67.5 77.5 88.0 95.3	-1.287 937 663 570 501 412 337 225 121 006	983 -1.077 -1.014 890 643 468 377 246 131 016	- 754 - 886 - 890 - 824 - 542 - 172 - 184 - 184	- 583322 - 7626 - 7626 - 7828 - 7828	454 656 736 824 815 817 829 174	338 500 549 639 736 790 836 767 495 287		104 105 106 107 108 109 110 111 112	3.0 10.0 25.0 41.0 52.5 62.5 72.5 85.1 94.6	.519 .239 .043 048 068 042 .010 .089 .135	.502 .234 .024 083 105 067 015 .092	.482 .220 .004 107 132 088 038 .086	.455 .199 020 148 176 123 078 .071	.438 .189 038 190 244 189 139 .027 .060	.422 .182 041 199 285 241 184 031 006
D34 35 36 37 38 39 40 41 42 43	2.0 15.0 27.5 40.0 50.0 59.0 67.5 77.5 87.5 94.2	-1.086 608 527 497 426 324 133 026 .033	913 865 755 701 560 500 145 031	709 820 837 823 376 136 013	555 705 760 864 858 697 202 038 .032	440 609 682 794 807 710 442 678 013	332 507 594 707 768 697 598 175 .016		113 114 115 116 117 118 119 120 121	3.0 10.0 25.0 41.0 52.5 62.5 72.5 87.4 94.2	.469 .227 .037 049 061 031 .010 .103	.457 .227 .022 080 091 062 011 .101	.440 .218 .008 101 114 080 004 .099	.414 .202 014 134 152 113 031 .074	.399 .193 030 167 193 158 069 .040	.384 .189 037 201 207 178 073 .024 .038
E44 45 46 47 48 49 50 51 52 53	2.0 6.0 15.0 27.5 40.0 50.0 67.5 77.5 88.5 95.5	-1.127 834 595 523 481 408 326 232 120 .013 .027	971 -1.053 886 733 596 492 382 266 137 .018	798 913 891 906 832 798 349 253 136 .036	618 758 758 809 826 786 739 303 133 030	466 620 638 713 783 729 717 430 185 123			122 123 124 125 126 127 128 129 130	3.0 10.0 25.0 41.0 52.5 62.5 72.5 78.0 85.3 94.1	.497 .336 .043 044 036 .004 .028 .073	.498 .246 .037 066 054 054 059 .017 .052 .128	.504 .256 .037 075 074 061 015 .013	.475 .236 .017 101 099 083 036 009 .030	.452 .220 005 140 136 124 078 052 019	
F55 56 57 58 59 60 61 62 63 64	2.0 6.0 15.0 27.5 49.0 50.0 59.0 67.5 86.5 94.6	-1.059 769 573 491 450 378 289 182 .001	950 -1.006 820 684 590 456 334 208 .004	789 881 868 863 787 702 350 201 . 004	621 732 747 785 749 700 530 374 008	473 598 633 694 678 670 487 426 237 122		1	132 133 134 135 136 137 138 139 140	3.0 10.0 25.0 41.0 52.5 62.5 72.5 83.4 94.0	.476 .226 .034 052 075 057 032 026	.483 .240 .033 072 098 075 045 .036	.491 .251 .037 080 110 103 053 045	.465 .234 .018 103 135 132 071 050 .028	.441 .219 .001 135 171 138 100 084 .015	,
G65 66 67 68 69 70 71 72 73 74	2.0 6.0 15.0 27.5 40.0 50.0 59.0 67.5 77.5 87.2 96.8	925 689 525 449 413 349 242 146 .004 .040	864 914 686 607 554 460 280 173 .001 .035	729 845 794 706 660 610 350 162 .003 .041	571 702 693 673 660 619 614 248 .030 .055	434 576 593 621 642 589 589 556 126 .085		1	141 142 143 144 145 146 147 148	3.0 10.0 25.0 41.0 52.5 62.5 72.5 84.0 92.0	.454 .209 .017 072 092 079 054 047	.475 .215 .027 088 109 080 072 060	.490 .230 .023 094 119 092 081 075	.470 .215 .009 113 138 122 093 087	.454 .208 003 135 164 143 112 107	
H76 77 78 79 80 81 82 83 84 85	2.0 6.0 15.0 27.5 40.0 50.0 67.5 88.3 94.2	739 591 438 393 358 310 226 132 .001	749 710 576 494 459 403 290 172 018	660 724 557 576 511 485 332 194 036	515 610 522 540 557 505 385 212 040	391 509 475 490 545 556 445 275 047		111111111111111111111111111111111111111	150 151 152 153 154 155 156 157	3.0 10.0 25.0 41.0 52.5 62.5 72.5 84.9	.403 .171 .010 100 120 089 059 .044	.434 .201 .018 117 150 100 085	.456 .224 .031 124 166 127 111	.440 .220 .027 138 189 147 111 .028	.432 .223 .031 149 227 091 048 .023	

TABLE 62

 $\begin{bmatrix} \Lambda = -30^{\circ}, \ \delta_{\mathbf{a}_{\mathbf{n}}} = -5.0^{\circ}, \ \alpha = 7^{\circ} \end{bmatrix}$ $= -5.0^{\circ}, \ \alpha = 7^{\circ}$

			UPPER	SURPAC	E		CONFID	ENTIA I	'r —		LOWER	SURFAC	E		
	Per-			Mach N	umber			-	Per-			Mach N	umber		
Тлрө	cent chord	0.60	0.80	0.85	0.89	0.92	0.96	Tube	chord	0.60	0.80	0.85	0.89	0.92	0.96
A 1 2 3 4 5 6 7 8 9 10 11	2.0 6.0 15.0 27.5 40.0 50.0 59.0 67.5 77.5 87.5 96.0	 -0.490 415 338	 -0.559 559 532	 -0,559 571 560	 0.566 579 577	 -0.583 594 593 	 -0.704 700 680	86 87 88 89 90 91 92 93	3.0 10.0 25.0 41.0 52.5 62.5 72.5 84.0 94.0	 -0.042 035 016	 -0.089 079 064	 -0.132 107 093	 -0.173 128 112	-0.220 143 120	 -0.299 175 094
B12 13 14 15 16 17 18 19 20 21 22	2.0 6.0 15.0 27.5 40.0 50.0 59.0 67.5 77.5 88.0 95.3	658 671 685 721 672 587 520 428 322 178	-1.421 -1.308 500 493 504 511 502 453 358 224	-1.276 -1.138 493 509 516 520 516 489 403 266	-1.150 -1.084 504 523 525 526 493 424 274	-1.089 977 635 548 567 565 540 490 403 286	-1.004 937 820 742 728 708 618 513 460 498	95 96 97 98 99 100 101 102 103	3.0 10.0 25.0 41.0 52.5 62.5 72.5 86.3 94.5	.723 .392 .109 016 048 033 .005 .037	.743 .403 .090 057 093 074 028 .001	.720 .384 .066 092 128 105 052 020	.701 .373 .046 126 167 135 071 031	.682 .360 .031 158 215 163 081 037 045	.311 029 .039 162 248 233 125 046 035
C23 24 25 26 27 28 29 30 31 32 33	2.0 6.0 15.0 27.5 40.0 50.0 67.5 77.5 88.0 95.3	-1.417 -1.291 860 603 547 473 409 295 198 089	-1.489 -1.419 -1.305 795 536 419 349 281 227 132	-1.227 -1.211 -1.110 962 648 527 436 367 337 212	-1.026 -1.056 -1.021 957 783 642 542 457 439 278	861 920 918 909 867 768 651 566 555 463	732 805 817 862 859 821 817 768 723 577	104 105 106 107 108 109 110 111 112	3.0 10.0 25.0 41.0 52.5 62.5 72.5 85.1 94.6	.716 .416 .163 .023 019 018 .023 .059 .087	.707 .418 .158 .003 052 044 .003 .058 .083	.689 .403 .141 024 086 077 023 .029	.675 .394 .129 049 119 109 049 .017	.665 .386 .122 066 151 141 074 .024	147 .024 .062 063 160 171 107 028
D34 35 36 37 38 39 40 41 42 43	2.0 15.0 27.5 40.0 50.0 67.5 77.5 87.5 94.2	-2.006 810 639 550 452 335 142 068 039	-1.407 -1.310 -1.208 790 560 376 102 043 006	-1.137 -1.128 -1.090 -1.067 910 574 131 102 083	936 990 -1.012 986 974 815 210 155 145	785 875 913 957 918 833 545 166 172	667 774 821 875 857 788 673 261 198	113 114 115 116 117 118 119 120	3.0 10.0 25.0 41.0 52.5 62.5 72.5 87.4 94.2	.693 .416 .170 .041 .004 .038 .093 .073	.670 .411 .166 .025 016 008 .033 .137	.651 .399 .152 .003 043 044 .004 .070	.637 .390 .140 019 073 078 029 .053	.627 .384 .133 094 101 046 .034 002	117 .037 .066 028 091 104 052 .030 009
E 44 45 46 47 48 49 50 51 52 53	2.0 6.0 15.0 27.5 40.0 50.0 57.5 77.5 88.5 95.5	-1.950 -1.679 904 641 541 438 333 233 140 054 037	-1.445 -1.420 -1.331 -1.245 839 567 383 229 114 039 037	-1,206 -1,222 -1,167 -1,094 -1,016 -,823 -,676 -,335 -,212 -,177 -,170	-1.025 -1.076 -1.033 998 957 862 744 461 252 262 280	867 935 918 935 875 860 747 570 274 302 345		122 123 124 125 126 127 128 129 130 131	3.0 10.0 25.0 41.0 52.5 62.5 72.5 78.0 85.3 94.1	.710 .423 .179 .050 .023 .008 .028 .046 .078	.700 .430 .184 .045 .017 .003 .029 .048 .093	.694 .426 .178 .033 .002 017 .008 .035 .068 .084	.682 .419 .169 .018 016 030 018 002 .035 .029	.674 .414 .163 .005 031 057 038 022 .016	
F55 56 57 58 59 60 61 62 63 64	2.0 6.0 15.0 27.5 49.0 50.0 59.0 67.5 86.5 94.6	-1.913 -1.056 825 625 521 412 302 197 052 014	-1.450 -1.401 -1.333 -1.213 867 493 359 239 028	-1.206 -1.202 -1.156 -1.091 952 611 568 500 212 066	-1.027 -1.051 -1.026 999 929 602 559 539 481 352	866 908 908 915 871 589 537 532 566 471		132 133 134 135 136 137 138 139	41.0 52.5 62.5 72.5 83.4	.700 .416 .171 .046 003 009 003 009	.795 .427 .182 .044 012 014 005 013	.689 .427 .188 .033 026 029 019 019	.678 .419 .172 .021 041 043 031 032	.671 .416 .169 .011 056 057 044 052 013	
G65 66 67 68 69 70 71 72 73 74 75	2.0 6.0 15.0 27.5 40.0 50.0 59.0 67.5 77.5 87.2 96.8	-1.974 -1.361 749 592 495 395 276 173 059 012	-1.418 -1.382 -1.264 -1.190 759 419 296 183 053 014 .027	-1.170 -1.178 -1.121 -1.029 -1.013 917 561 191 026 .022 .062	994 -1.025 -1.002 982 920 910 849 647 015 .035	830 881 878 898 838 232 835 750 466 .069		141 142 143 144 145 146 147 148	72.5	.687 .390 .156 .026 .016 022 020 019	.691 .409 .172 .027 021 021 027 060 .037	.689 .412 .171 .019 033 042 029 074	.680 .406 .166 .010 044 047 046 072	.677 .407 .164 .004 053 058 056 083	
H76 77 78 79 80 81 82 83 84 85	2.0 6.0 15.0 27.5 40.0 50.0 59.0 67.5 88.3 94.2	-1.641 928 632 525 440 365 270 177 036	-1.316 -1.301 -1.086 668 582 499 349 225 075	-1.082 -1.100 -1.002 796 691 608 441 261	922 958 911 804 703 664 538 317 121	775 823 808 760 669 656 573 390 134		150 151 152 153 154 155 156 157	41.0 52.5 62.5	.656 .356 .130 014 060 046 043	.676 .392 .159 011 073 062 064	.678 .400 .164 018 089 079 084 .002	.674 .102 .167 023 103 092 106 006	.674 :410 :176 022 113 102 111 008	

TABLE 63

 $\left[\Lambda = -30^{\circ}, \delta_{a_{11}} = 5.0^{\circ}, \alpha = -2^{\circ}\right]$

\Box			UPPR	R SURFA	CE	<u> </u>	CONFID	ENTI	IAL		_	LOWER	SURPAG	E		
	Per-				Number			┪┝		Per-	l		Mach 1			
Тире	cent chord	0.60	0.80	0.85	0.89	I	Γ	1 1	'ube	cent chord	0.60	0.80	0.85	0.89	Γ -	
A 1 2 3 4 5 6 7 8 9 10 11	2.0 6.0 15.0 27.5 40.0 50.0 59.0 67.5 77.5 87.5 96.0	 -0.191 157 098	 -0.225 177 094	 -0.235 171 092	-0.218 -0.218 134 069				86 87 88 89 90 91 92 93 94	3.0 10.0 25.0 41.0 52.5 62.5 72.5 84.0 94.0	 -0.108 079 023	 -0.104 068 008	 -0.054 056 .000	==.		-
B12 13 14 15 16 17 18 19 20 21 22	2.0 6.0 15.0 27.5 40.0 50.0 67.5 77.5 88.0 95.3	.387 .086 112 208 252 244 208 157 046 .053	.418 .095 157 290 333 313 259 219 054 .057	.329 .093 180 349 394 349 300 159 055 .062	.425 .098 189 396 534 499 459 065 023 .074			1 1 1 1	95 96 97 98 99 100 101 102	3.0 10.0 25.0 41.0 52.5 62.5 72.5 86.3 94.5	842 392 290 249 187 122 038 .053	-1.009 688 357 277 197 120 026 .068 .128	-1.000 993 619 211 7.178 104 .016 .078 .136	864 942 853 639 087 014 .032 .108		-
23 24 25 26 27 28 29 30 31 32 33	2.0 6.0 15.0 27.6 40.0 50.0 67.5 77.5 88.0 95.3	.376 .107 082 193 256 224 223 164 071 .038	.423 .140 088 240 337 323 280 226 077 .038	.433 .151 087 262 395 396 326 268 082 .040	.442 .162 080 272 458 534 464 089 048			1 1 1 1 1 1	104 105 106 107 108 109 110 111	3.0 10.0 25.0 41.0 52.5 62.5 72.5 85.1 94.6	554 384 310 247 223 148 048 .037	734 520 435 308 259 167 050 .044	752 580 526 444 251 153 037 .051	656 648 572 537 545 274 019 .075 .122	•	
D34 35 36 37 38 39 40 41 42 43	2.0 15.0 27.5 40.0 59.0 67.5 77.5 87.5 94.2	.323 082 184 256 257 168 074 .010	.374 081 220 324 329 265 054 .003	.386 079 234 364 374 331 060 003	.398 072 244 414 466 430 096 028			1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	113 114 115 116 117 118 119 120	3.0 10.0 25.0 41.0 52.5 62.5 72.5 87.4 94.2	494 333, 300 269 214 138 052 .063	647 427 396 351 270 172 075 .047	698 483 447 409 317 079 044 073	627 565 530 486 371 240 119 .026		
244 45 46 47 48 49 50 51 52 53 54	2.0 6.0 15.0 27.5 40.0 50.0 67.5 77.5 88.5 95.5	.283 .044 117 212 273 272 239 187 125 .123	.330 .068 133 263 356 355 307 262 078 .122	.350 .086 127 277 398 402 345 309 047 .118	.370 .106 115 278 436 490 421 380 062	,		1 1 1 1 1 1	22 .23 .24 .25 .26 .27 .28 .29 .30 .31	3.0 10.0 25.0 41.0 52.5 62.5 72.5 78.0 85.3 94.1	352 266 257 245 175 123 043 003 .051 .088	421 326 327 288 225 141 062 013 .047	451 349 368 318 252 148 072 012 .041	471 360 408 354 289 149 087 031 .032		
59 60 61 62 63	2.0 6.0 15.0 27.5 49.0 50.0 59.0 67.5 86.5 94.6	.279 .041 117 215 282 283 259 222 060	.328 .067 126 260 362 367 329 286 064 .043	.351 .087 119 270 398 413 365 325 053	.371 .107 106 268 429 486 421 382 049	,		1:	34 35 36 37 38 39	3.0 10.0 25.0 41.0 52.5 62.5 72.5 83.4 94.0	356 253 239 179 163 095 .036 .126 .086	432 314 305 270 214 078 .030 .131	471 339 340 302 243 074 .028 .130	478 357 394 330 274 074 .026 .129 .071		
G65 66 67 68 69 70 71 72 73 74 75	2.0 6.0 15.0 27.5 40.0 50.0 67.5 77.5 87.2 96.8	.290 .047 105 209 278 289 256 222 179 152	.350 .082 103 241 343 364 319 275 230 172 319	.373 .103 094 247 371 404 354 305 263 139	.395 .123 079 243 351 450 384 384 305 086			14 14 14 14 14	43 44 45 46 47 48	3.0 10.0 25.0 41.0 52.5 62.5 72.5 84.0 92.0	309 247 220 187 140 070 .053 .141 .104	376 316 292 245 192 069 .043 .142 .104	399 348 331 274 220 059 .039 .144 .103	396 358 382 303 255 055 .037 .143	-	
H76 77 78 79 80 81 82 83 84 85	2.0 6.0 15.0 27.5 40.0 50.0 59.0 67.5 88.3 94.2	.261 .041 083 185 242 255 217 169 052	.315 .077 078 203 284 311 266 207 075	.337 .095 067 203 296 337 285 225 086	.360 .117 054 200 301 365 306 247 096			15 15 15 15	52 53 54 55	3.0 10.0 25.0 41.0 52.5 62.5 72.5 84.9	350 209 185 199 157 067 .044	413 251 232 269 215 100 .032	437 265 246 312 247 124 .026 .038	443 266 247 349 306 141 .020	,	
لنسا						IDENTI		<u> </u>		1		`	~~WAC	مرس	i	

TABLE 64

 $\left[\Lambda = -30^{\circ}, \delta_{\mathbf{a}_{n}} = 5.0^{\circ}, \alpha = 0^{\circ}\right]$

			गुरुक्त	SURPAG	EE		CONFIG	ENT				LOWER	SURPAC	B		
	Per-	-	011131	Mach !				<u> </u>		Per-	<u> </u>	-	Mach N		 -	
Tube	cent chord	0.60	0.80	0.85	0.89	0.925	0.96	Tu!		cent chord	0.60	0.80	0.85	0.89	0.925	0.96
A 1 2 3 4 5 6 7 8 9 10 11	2.0 6.0 15.0 27.5 40.0 50.0 67.5 77.5 87.5 96.0	 -0.222 179 114	 -0.236 180 108				 -0.701 669 492	8 9 9	86 87 88 89 90 91 92 93 94	3.0 10.0 25.0 41.0 52.5 62.5 72.5 84.0 94.0	 -0.082 058 010		 -0.103 052 .000	 -0.099 048 .003	 -0.079 022 .026	 -0.547 275 066
B12 13 14 15 16 17 18 19 20 21 22	2.0 6.0 15.0 27.5 40.0 50.0 59.0 67.5 77.5 88.0 95.3	200 288 311 328 330 302 255 196 075 .040	186 371 447 442 413 365 273 165 074 .052	.074 341 528 598 552 370 209 147 062 .058	012 266 479 602 690 645 470 215 028	.060 188 416 554 5689 4906 4906 4906 4906	.145 343 486 597 704 742 739 592 203	9	01 02	3.0 10.0 25.0 41.0 52.5 62.5 72.5 86.3 94.5	130 143 184 189 157 095 009 -071 -132	185 199 245 232 185 104 007 .082 .147	226 245 291 259 202 099 004 . 086 . 151	265 330 390 321 165 088 .000 .095	267 376 458 499 421 060 .029 .109 .172	245 367 447 546 605 542 228 055
C23 24 25 26 27 28 29 30 31 32 33	2.0 6.0 15.0 27.5 40.0 50.0 67.5 77.5 88.0 95.3	049 187 282 330 351 314 276 223 091	.004 187 342 441 476 403 363 188 096 .028	.050 160 337 472 618 530 508 132 083 .038	.111 111 296 480 616 693 672 388 088 .034	.172 053 243 411 567 702 745 670 186 065	.239 .010 180 347 499 638 731 662 488 184	10 10 10 10 11 11 11 11	05 06 07 08 09 10	3.0 10.0 25.0 41.0 52.5 62.5 72.5 85.1 94.6	066 130 180 177 166 117 003 .041	077 166 234 228 204 159 .007 .061	091 190 274 265 232 190 .005 .063	105 217 321 344 295 245 .010 .066 .134	105 217 328 413 422 369 037 .047	091 190 329 414 488 446 219 113 061
D34 35, 36 37 38 39 40 41 42 43	2.0 15.0 27.5 40.0 50.0 67.5 77.5 87.5 94.2	056 265 314 354 331 262 018 087 006	.005 307 397 464 426 350 096 009	.040 306 432 552 508 425 114 015	.089 275 417 570 630 541 126 031	.145 229 377 529 643 588 355 053 .029	.206 172 320 469 591 570 529 202	111111111111111111111111111111111111111	14 15 16 17 18 19	3.0 10.0 25.0 41.0 52.5 62.5 72.5 87.4 94.2	062 104 171 186 157 105 019 .071	079 129 219 238 200 136 129 .068	094 145 232 274 229 158 043 .062	111 159 281 326 277 196 063 .048	121 159 300 371 334 266 096 .015	120 146 316 423 380 297 104 .011
E44 45 46 47 48 49 50 51 52 53	2.0 6.0 15.0 27.5 40.0 50.0 67.5 77.5 88.5 95.5	126 234 301 338 370 344 294 249 070 .099	078 242 331 441 494 451 392 363 088 .092 .061	023 209 359 469 584 548 498 365 097 .086	.041 160 323 451 586 661 618 508 106 .096	.088122293427562660599585423079 .003		12 12 12	25 26 27 28 29 30	3.0 10.0 25.0 41.0 52.5 62.5 72.5 78.0 85.3 94.1	.043 053 132 151 113 078 043 .033 .079 .103	.048 060 161 182 137 101 034 .026 .079	.035 072 183 206 153 118 031 .018 .075 .103	.021 083 206 232 173 139 031 .009 .068 .098	.008 092 232 262 198 168 042 008 .054 .079	
F55 56 57 58 59 60 61 62 63 64	2.0 6.0 15.0 27.5 49.0 50.0 59.0 67.5 86.5 94.6	129 234 295 339 377 354 312 271 042	072 234 344 425 492 459 404 374 054	018 201 337 451 571 540 486 458 058 -037	.043 157 306 435 569 656 589 572 070	.090 121 282 414 549 670 634 616 147 024		13 13 13 13 13	32 33 34 35 36 37 38 39 40	3.0 10.0 25.0 41.0 52.5 62.5 72.5 83.4 94.0	.034 045 119 130 100 053 .086 .150	.032 056 151 163 122 082 .094 .160	.019 070 169 186 139 105 .093 .162	.005 080 191 210 157 128 .092 .163 .081	007 088 173 242 181 158 .090 .161	
G65 66 67 68 69 70 71 72 73 74 75	2.0 6.0 15.0 27.5 40.0 50.0 59.0 67.5 77.5 87.2 96.8	092 211 268 321 360 350 304 264 225 042	016 194 297 387 454 439 380 349 286 052	.036 118 288 402 500 499 434 407 288 060	.089 123 265 387 514 578 505 480 278 072	.123 096 247 372 501 621 586 553 451 096		14 14 14 14 14 14	43 44 45 46	3.0 10.0 25.0 41.0 52.5 62.5 72.5 84.0 92.0	.051 052 112 118 075 043 .100 .162	.046 073 149 154 110 073 .104 .168	.037 087 172 174 126 095 .100 .169	.030 098 195 197 145 115 .098 .169	.030 104 227 223 167 144 .082 .165	
H76 77 78 79 80 81 82 83 84 85	2.0 6.0 15.0 27.5 40.0 50.0 59.0 67.5 88.3 94.2	053 175 216 271 297 294 185 067	.014 154 227 308 351 356 292 221 186	.054 130 222 319 374 395 321 246 109	.097 100 204 318 371 417 347 271 121	.122 081 194 325 404 434 392 305 158		15 15 15 15 15 15	51 52 53 54 55	3.0 10.0 25.0 41.0 52.5 62.5 72.5 84.9	022 056 103 152 125 045 .017 .051	.028 .064 127 198 173 077 .053 .035	033 067 138 231 204 097 .048 .027	032 064 140 272 241 113 -045 020	025 056 131 272 341 138 .043	

TABLE 65

 $\left[\Lambda = -30^{\circ}, \ \delta_{\alpha_{11}} = 5.0^{\circ}, \ \alpha = 2^{\circ}\right]$

			UPPE	SURPAC	CE .		CONFI	DĖNTIA I	AL		LOWER	SURFAC	E		
	Per-			Mach N					Per-			Mach N			
Tube	cent chord	0.60	0.80	0.85	0.89	0.925	0.96	Tube	cent	0.60	0.80	0.85	0.89	0.925	0.96
A 1 2 5 6 7 8 9 10	2.0 6.0 15.0 27.5 40.0 50.0 67.5 77.5 87.5 96.0	 -0.243 194 128			 -0.305 199 108	 -0.515 328 228	 - 0.782 736 557	86 87 88 89 90 91 92 93 94	3.0 10.0 25.0 41.0 52.5 62.5 72.5 84.0 94.0	 -0.052 0.052 0.04	 -0.074 039 .008	 -0.088 039 .009	 -0.105 047 .001	 -0.116 052 008	 -0.467 323 072
B12 13 14 15 16 17 18 19 20 21 22	2.0 6.0 15.0 27.5 40.0 50.0 59.0 67.5 77.5 88.0 95.3	-1.150 770 506 435 393 343 276 188 096 030	991 -1.048 -1.053 878 327 261 172 076 .043	768 881 984 982 850 510 290 151 044	563 700 818 893 836 487 351 234 .072	379 537 676 807 849 780 460 299 056	253 421 582 708 764 812 849 805 586 374	95 96 97 98 99 100 101 102 103	3.0 10.0 25.0 41.0 52.5 62.5 72.5 86.3 94.5	.334 .096 069 119 109 062 .007 .080	.327 .086 104 159 137 077 .007 .092	.286 .056 136 187 158 084 .008	.233 .019 193 244 198 183 007 .085	.170 024 251 374 316 137 011 .070 .130	.155 023 233 409 467 408 185 112 001
C23 24 25 26 27 28 29 30 31 32 33	2.0 6.0 15.0 27.5 40.0 50.0 67.5 77.5 88.0 95.3	653 544 501 469 443 374 343 194 114	613 644 676 724 682 621 242 101 .017	472 571 617 753 841 739 182 089 .003	319 447 520 670 783 846 817 703 146 091	176321425581694774852763260165	.159231347502619711820737532244	104 105 106 107 108 109 110 111	3.0 10.0 25.0 41.0 52.5 62.5 72.5 85.1 94.6	.301 .090 052 102 106 060 022 .077	.206 .098 068 133 137 095 051 .085	.294 .080 091 161 166 076 .081 .146	.265 .057 124 210 209 151 096 .060	.225 .028 157 274 304 237 155 .030	.222 .032 149 284 370 305 259 076 045
D34 35, 36 37 38 39 40 41 42 43	2.0 15.0 27.5 40.0 50.0 59.0 67.5 77.5 87.5 94.2	599466448448403314125020 .051	577 630 661 663 595 529 186 077	548 574 671 771 629 155 039 .036	319 488 611 727 720 674 339 031	183 405 531 653 740 642 557 097	091 330 462 583 690 638 620 360 .005	113 114 115 116 117 118 119 120 121	3.0 10.0 25.0 41.0 52.5 62.5 72.5 87.4 94.2	.272 .096 050 103 096 062 .003 .086	.285 .103 064 133 124 083 002 .090	.266 .091 083 157 148 104 015 .079	.241 .075 108 197 193 126 041 .063	.203 .052 135 243 242 200 084 .033	.197 .057 -132 257 266 235 120 .014
E 44 45 46 47 48 49 50 51 52 53	2.0 6.0 15.0 27.5 40.0 50.0 67.5 77.5 88.5 95.5	690 571 504 477 497 420 365 231 125 .011	685 666 6681 668 601 541 238 142 057	521 627 616 709 785 734 737 407 118 .070	376 504 541 649 741 703 685 608 335 010	238 383 455 573 673 623 623 531 417 303 231		122 123 124 125 126 127 128 129 130 131	3.0 10.0 25.0 41.0 52.5 62.5 72.5 78.0 85.3 94.1	.332 .152 .001 070 052 030 013 .026 .101	.375 .158 013 083 061 038 009 .028 .104 .122	.355 .146 028 102 077 052 026 .025 .095	.327 .129 049 123 094 067 046 .025 .084	.301 .111 067 156 126 103 090 030 .031	
F55 56 57 58 59 60 61 62 63 64	2.0 6.0 15.0 27.5 49.0 50.0 59.0 67.5 86.5 94.6	683 561 494 473 471 428 378 301 066	664 683 630 650 550 586 557 316 071	51.0 602 592 670 753 705 685 544 078	383 491 519 620 720 707 692 676 141 003	232 379 437 551 659 650 635 635 398 223		132 133 134 135 136 137 138 139 140	3.0 10.0 25.0 41.0 52.5 62.5 72.5 83.4 94.0	.338 .139 005 052 043 .004 .026 .174 .106	.365 .159 005 066 052 003 .019 .193 .105	.346 .146 020 084 067 018 .010 .194 .095	.318 .131 038 104 083 033 .002 .196 .089	.292 .114 069 133 106 058 027 .188	
G65 66 67 68 69 70 71 72 73 74 75	2.0 6.0 15.0 27.5 40.0 50.0 67.5 77.5 87.2 96.8	599 516 450 441 445 362 322 195 059	560593553567587536494470208074	436 538 520 579 660 618 581 554 216 082 .029	- 310 - 448 - 465 - 544 - 638 - 696 - 636 - 626 - 257 - 094 020	190 351 395 490 599 658 643 497 097		141 142 143 144 145 146 147 148 149	3.0 10.0 25.0 41.0 52.5 62.5 72.5 84.0 92.0	.333 .123 006 049 032 .016 .038 .186	.360 .136 013 067 045 .019 .029 .198 .122	.349 .129 028 084 061 020 .014 .196 .116	.327 .113 045 102 075 034 .021 .195	.308 .101 064 125 051 .013 .193 .109	
H76 77 78 79 80 81 82 83 84 85	2.0 6.0 15.0 27.5 40.0 50.0 59.0 67.5 88.3 94.2	450 424 358 362 360 339 278 211 .093	420 465 417 437 443 341 260 135	341 431 418 456 451 477 374 211 156	247 368 371 455 472 456 397 307 167	153 294 317 418 475 486 394 307 180		150 151 152 153 154 155 156 157	3.0 10.0 25.0 41.0 52.5 62.5 72.5 84.9	.255 .101 017 099 090 019 .077 .043	.284 .127 019 129 126 046 .075	.280 .127 024 151 151 062 .070 015	.265 .119 029 174 179 078 .069	.257 .119 027 196 239 093 .070 .020	

TABLE 66

$$\left[\Lambda = -30^{\circ}, \, \delta_{\mathbf{a}_{n}} = 5.0^{\circ}, \, \alpha = 4^{\circ}\right]$$

			торы	SURPAC	·P		CONFI	ENTIA	ــــــ		LOWER	SURFAC	R		
<u>_</u>	Per-		UFFBI	Mach 1					Per-		DOMBIL	Mach N			
Tube	cent chord	0.60	0.80	0.85	0.89	0.925	0,96	Tube	cent	0,60	0.80	0.85	0.89	0.925	0.96
A 1 2 3 4 5 6 7 8 9 10 11	2.0 6.0 15.0 27.5 40.0 50.0 67.5 77.5 87.5 96.0	 0.209 182 130	-0.464 364 264		 	 -0.369 345 307	 -0.765 590 457	86 87 88 89 90 91 92 93 94	3.0 10.0 25.0 41.0 52.5 62.5 72.5 84.0 94.0	 -0.024 023 010	 -0.058 043 005		 -0.142 103 074 	 -0.193 110 086	-0.382 -0.385 305 118
B12 13 14 15 16 17 18 19 20 21 22	2.0 6.0 15.0 27.5 40.0 50.0 67.5 77.5 88.0 95.3	-1.184 -1.165 831 618 456 376 286 193 096	-1.219 -1.177810595589519405293180051	-1.079 -1.089 547 516 497 450 358 247 156	959 908 702 563 559 502 438 374 288 230	864 884 884 554 554 36 36 36	626 747 816 865 866 826 852 795 729 521	95 96 97 98 99 100 101 102 103	3.0 10.0 25.0 41.0 52.5 62.5 72.5 86.3 94.5	.597 .271 .031 060 067 050 .020 .084 .130	.568 .258 .000 101 106 062 .007 .075	.549 .235 030 138 143 096 023 .036	.499 .215 070 190 188 127 044 .019	.465 .180 107 273 288 203 072 .000	.452 .189 103 284 355 319 174 127 053
C23 24 25 26 27 28 29 30 31 32	2.0 6.0 15.0 27.5 40.0 50.0 67.5 77.5 88.0 95.3	-1.453 931 708 606 531 436 350 232 127 013	-1.072 -1.147 -1.102 994 518 424 374 256 151 015	831 951 9527 8596 3587 1391 1041	643 782 809 864 817 737 646 545 287 089	493 647 689 763 831 777 822 731 572 247	378 536 585 661 761 872 791 302	104 105 106 107 108 109 110 111	3.0 10.0 25.0 41.0 52.5 62.5 72.5 85.1 94.6	.555 270 .048 033 056 032 .017 .071	.542 .271 .051 056 088 054 001 .093 .136	.525 .258 .035 082 117 079 025 .073 .122	.495 .236 .007 116 164 110 065 .061	.473 .219 014 168 240 196 139 .009	.468 .222 006 167 271 238 143 038 018
D34 35 36 37 38 39 40 41 42 43	2.0 15.0 27.5 40.0 50.0 59.0 67.5 77.5 87.5 94.2	-1.217 655 569 528 453 350 140 033	-1.000 -1.025 921 808 504 430 136 022 .038	785 893 924 916 713 122 005 . 056	609 760 812 908 937 847 263 087	474 646 712 818 881 837 525 233 055	372 547 625 625 811 802 616 391 086	113 114 115 116 117 118 119 120 121	3.0 10.0 25.0 41.0 52.5 62.5 72.5 87.4 94.2	.513 .261 .061 029 043 022 .023 .077	.508 .270 .057 045 061 033 .009 .148	.491 .262 .045 065 082 057 003 .109	.461 .242 .022 101 127 104 031 .067	.442 .229 .004 136 156 085 022 012	.422 .233 .010 136 181 173 104 .020
E 44 45 46 47 48 49 50 51 52 53	2.0 6.0 15.0 27.5 40.0 50.0 67.5 77.5 88.5 95.5	-1.571 -1.075 686 592 538 453 366 262 137 007	-1.119 -1.117 -1.103 -1.004 885 506 399 277 .136 .034	879 972 951 969 933 913 864 478 116 .003	699 820 822 864 878 842 831 669 388 165 150	537 679 698 757 720 716 669 550 480 461 397		122 123 124 125 126 127 128 129 130 131	3.0 10.0 25.0 41.0 52.5 62.5 72.5 78.0 85.3 94.1	.562 .292 .090 .001 001 .001 .051 .081	.559 .307 .114 005 006 .019 .042 .053 .094 .128	.547 .301 .089 013 012 006 .007 .045 .097	.528 .289 .075 025 025 024 005 .013 .054	.58 .271 .055 .061 063 069 056 054 034	
F55 56 57 58 59 60 61 62 63 64	2.0 6.0 15.0 27.5 49.0 50.0 59.0 67.5 86.5 94.6	-1.453 875 673 582 535 465 379 282 066	-1.114 -1.136 -1.067 935 823 585 484 329 063	871 943 929 946 900 930 753 563 098	697 797 807 846 824 863 714 619 388 160	542 658 687 743 752 720 724 568 434	•	132 133 134 135 136 137 138 139 140	3.0 10.0 25.0 41.0 52.5 62.5 72.5 83.4 94.0	.556 .294 .097 .016 .004 .053 .073 .182 .083	.556 .308 .102 .011 .000 .043 .068 .212	.543 .304 .097 .003 006 .040 .064 .224	.525 .292 .084 014 020 .028 .049 .215 .074	.500 .277 .077 036 044 .006 .026 .028	
G65 66 67 68 69 70 71 72 73 74 75	2.0 6.0 15.0 27.5 40.0 59.0 67.5 77.5 87.2 96.8	-1.242 922 606 547 513 455 365 291 200 061	.028 -1.082 897 765 717 608 453 352 229 088 022	804 906 873 795 791 769 740 493 247 102	645 768 763 766 771 787 749 742 319 104	499 637 651 686 721 796 748 741 653 130 014		141 142 143 144 145 146 147 148 149	3.0 10.0 25.0 41.0 52.5 62.5 72.5 84.0 92.0	.546 .274 .093 .016 .014 .048 .088 .207	.555 .291 .097 .007 .042 .077 .225	.513 .285 .090 003 003 .046 .067 .232 .118	.531 .277 .080 015 014 .038 .055 .235 .123	.514 .264 .066 031 028 .021 .037 .232 .117	
H76 77 78 79 80 81 82 83 84 85	2.0 6.0 15.0 27.5 40.0 50.0 59.0 67.5 88.3 94.2	947 709 510 453 423 384 311 238 121	891 859 616 557 527 495 395 303 171	724 787 627 592 551 536 435 342 205	589 677 599 563 573 534 456 349 228	565 537 513 560 563 453 453 152 152		150 151 152 153 154 155 156 157	3.0 10.0 25.0 41.0 52.5 62.5 72.5 84.9	.478 .244 .068 040 050 .001 .093	.497 .270 .083 056 .021 011	.494 .271 .078 071 097 030 .088 .005	. 486 . 27. 7. 7. 60 . 0. 11. 60 . 0. 10. 60 . 0. 0. 60 . 0. 0. 60 . 0. 60 . 0. 60 . 0. 60 . 0. 60 . 0. 60 . 0. 60 . 0. 60 . 0. 60 . 0. 60 . 0. 60 . 0. 60 . 0. 60 . 0. 60 . 0. 60 . 0. 60 . 0. 60 . 0. 60 . 0. 60 . 0. 60 . 0. 60 . 0. 60 . 0. 60 . 0. 60 . 0. 60 . 0. 60 . 0. 60 . 0. 60 . 0. 60 . 0. 60 . 0. 60 . 0. 60 . 0. 60 . 0. 60 . 0. 60 . 0. 60 . 0. 60 . 0. 60 . 0. 60 . 0. 60 . 0. 60 . 0. 60 . 0. 60 . 0. 60 . 0. 60 . 0. 60 . 0. 60 . 0. 60 . 0. 60 . 0. 60 . 0. 60 . 0. 60 . 0. 60 . 0. 60 . 0. 60 . 0. 60 . 0. 60 . 0. 60 . 0. 60 . 0. 60 . 0. 60 . 0. 60 . 0. 60 . 0. 60 . 0. 60 . 0. 60 . 0. 60 . 0. 60 . 0. 60 . 0. 60 . 0. 60 . 0. 60 . 0. 60 . 0. 60 . 0. 60 . 0. 60 . 0. 60 . 0. 60 . 0. 60 . 0. 60 . 0. 60 . 0. 60 . 0. 60 . 0. 60 . 0. 60 . 0. 60 . 0. 60 . 0. 60 . 0. 60 . 0. 60 . 0. 60 . 0. 60 . 0. 60 . 0. 60 . 0. 60 . 0. 60 . 0. 60 . 0. 60 . 0. 60 . 0. 60 . 0. 60 . 0. 60 . 0. 60 . 0. 60 . 0. 60 . 0. 60 . 0. 60 . 0. 60 . 0. 60 . 0. 60 . 0. 60 . 0. 60 . 0. 60 . 0. 60 . 0. 60 . 0. 60 . 0. 60 . 0. 60 . 0. 60 . 0. 60 . 0. 60 . 0. 60 . 0. 60 . 0. 60 . 0. 60 . 0. 60 . 0. 60 . 0. 60 . 0. 60 . 0. 60 . 0. 60 . 0. 60 . 0. 60 . 0. 60 . 0. 60 . 0. 60 . 0. 60 . 0. 60 . 0. 60 . 0. 60 . 0. 60 . 0. 60 . 0. 60 . 0. 60 . 0. 60 . 0. 60 . 0. 60 . 0. 60 . 0. 60 . 0. 60 . 0. 60 . 0. 60 . 0. 60 . 0. 60 . 0. 60 . 0. 60 . 0. 60 . 0. 60 . 0. 60 . 0. 60 . 0. 60 . 0. 60 . 0. 60 . 0. 60 . 0. 60 . 0. 60 . 0. 60 . 0. 60 . 0. 60 . 0. 60 . 0. 60 . 0. 60 . 0. 60 . 0. 60 . 0. 60 . 0. 60 . 0. 60 . 0. 60 . 0. 60 . 0. 60 . 0. 60 . 0. 60 . 0. 60 . 0. 60 . 0. 60 . 0. 60 . 0. 60 . 0. 60 . 0. 60 . 0. 60 . 0. 60 . 0. 60 . 0. 60 . 0. 60 . 0. 60 . 0. 60 . 0. 60 . 0. 60 . 0. 60 . 0. 60 . 0. 60 . 0. 60 . 0. 60 . 0. 60 . 0. 60 . 0. 60 . 0. 60 . 0. 60 . 0. 60 . 0. 60 . 0. 60 . 0. 60 . 0. 60 . 0. 60 . 0. 60 . 0. 60 . 0. 60 . 0. 60 . 0. 60 . 0. 60 . 0. 60 . 0. 60 . 0. 60 . 0. 60 . 0. 60 . 0. 60 . 0. 60 . 0. 60 . 0. 60 . 0. 60 . 0. 60 . 0. 60 . 0. 60 . 0. 60 . 0. 60 . 0. 60 . 0. 60 . 0. 60 . 0. 60 . 0. 60 . 0. 60 . 0. 60 . 0. 60 . 0. 60 . 0. 60 . 0. 60 . 0. 60 . 0. 60 . 0	.475 .351 .075 099 148 060 088 007	
85	94.2			<u> </u>	CON	FIDENT	141	L.	l. <u>.</u>		-4	NACA	_ خرمر		

TABLE 67

 $\left[\Lambda = -30^{\circ}, \delta_{a_{n}} = 5.0^{\circ}, \alpha = 7^{\circ}\right]$

			ITPPR	R SURPA	ne.	 -	CONFI	DEN	IAITI	-		LOWER	SURPAC			-
	Per-	<u> </u>			Number					Per-		-	Mach N			
Tube	cent chord	0.60	0.80	0.85	0.89	0.925	0.96		Tube	cent chord	0,60	0.80	0.85	0.89	0.925	0.96
A 1 2 3 4 5 6 7 8 9 10	2.0 6.0 15.0 27.5 40.0 50.0 59.0 67.5 77.5 87.5 96.0	 -0.507 425 338	 -0.597 585 538	 -0.594 599 561	 -0.579 597 593		 -0.750 742 671		86 87 88 89 90 91 92 93	3.0 10.0 25.0 41.0 52.5 62.5 72.5 84.0 94.0	 -0.016 035 019	 -0.079 089 081	-0.125 -0.125 -123 -117	 -0.165 145 137	 -0.216 155 131	-0.272 -0.272 -208 -121
B12 13 14 15 16 17 18 19 20 21 22	2.0 6.0 15.0 27.5 40.0 50.0 67.5 77.5 88.0 95.3	633 664 637 686 596 597 498 388	546 558 556 588 618 626 562 474 367	546 562 581 602 611 604 559 432	546 554 539 554 562 570 569 526 407	-1.007 965 744 593 585 577 562 528 450 333	- 997 - 949 - 853 - 813 - 633 - 633 - 641 - 641		95 96 97 98 99 100 101 102 103	3.0 10.0 25.0 41.0 52.5 62.5 72.5 86.3 94.5	.746 .406 .117 012 045 033 .004 .038	.751 .410 .096 056 096 084 042 023 043	.718 .389 .070 091 135 120 072 051 076	.709 .374 .048 127 166 148 088 .027	.698 .368 .038 154 224 179 099 055 061	.698 .378 .055 144 230 223 139 083 075
23 24 25 26 27 28 29 30 31 32 33	2.0 6.0 15.0 27.5 40.0 50.0 67.5 77.5 88.0 95.3	-1.329 -1.273 991 687 556 484 405 206 102	1.385 1.328 1.328 1.550 1.550 1.550 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325 1.325	-1.244 -1.164 -1.075 785 609 5359 348 376 359 317	-1.041 -1.069 -1.017 957 762 619 506 418 406 383	881 936 933 908 876 760 661 577 529 452	748 815 827 867 886 840 847 803 768 622		104 105 106 107 108 109 110 111 112	3.0 10.0 25.0 41.0 52.5 62.5 72.5 85.1 94.6	.727 .432 .174 .033 .000 .003 .024 .056 .080	.722 .436 .191 .013 048 046 003 .027	.703 .416 .153 014 081 079 031 .004	.687 .406 .137 040 119 059 005	.681 .401 .135 053 149 150 096 014	.684 .414 .154 142 155 098 015
D34 35 36 37 38 39 40 41 42 43	2.0 15.0 27.5 40.0 50.0 59.0 67.5 77.5 87.5 94.2	-1.934 962 660 564 465 372 156 079 050	-1.437 -1.311 -1.222 814 626 470 135 063 .138	-1.163 -1.152 -1.087 -1.036 799 703 138 130 112	964 -1.010 -1.034 -1.004 992 896 331 216 188	813 895 930 975 948 903 558 277 248	686 786 829 882 887 845 741 569 286	•	113 114 115 116 117 118 119 120 121	3.0 10.0 25.9 41.0 52.5 62.5 72.5 87.4 94.2	.727 .435 .184 .056 .017 .014 .046 .096	.692 .436 .186 .046 .001 .040 .111	.674 .421 .171 .023 028 033 .006 .040	.656 .408 .155 004 062 072 032 .004	.648 .407 .153 014 079 087 055 .007 024	.653 .417 .169 .004 064 084 045 .013 010
E 44 45 46 47 48 49 50 51 52 53	2.0 6.0 15.0 27.5 40.0 50.0 59.0 67.5 77.5 88.5 95.5	-1.810 -1.663 -1.219 748 563 453 354 257 160 063 049	-1.525 -1.499 -1.385 -1.308 932 747 607 405 197 103 086	-1.251 -1.272 -1.196 -1.120 927 761 689 608 451 371 326	-1.068 -1.112 -1.064 -1.005 872 718 642 600 570 576 487	905 964 945 904 862 720 647 613 604 615 528			122 123 124 125 126 127 128 129 130	3.0 10.0 25.0 41.0 52.5 62.5 72.5 78.0 85.3 94.1	.734 .454 .211 .086 .058 .041 .090 .066 .093	.731 .467 .224 .111 .065 .047 .061 .075 .107	.716 .324 .211 .075 .045 .022 .028 .035 .058	.709 .448 .204 .063 .030 .000 002 001 .016 036	.700 .441 .197 .041 .014 021 036 037 020 040	,
F55 57 58 59 61 62 63 64	2.0 6.0 15.0 27.5 49.0 50.0 59.0 67.5 86.5 94.6	-1.165 732	-1.543 -1.488 -1.404 -1.303 -1.084 738 601 468 146 052	-1.263 -1.256 -1.199 -1.131 -1.077 811 700 655 520 366	-1.078 -1.095 -1.065 -1.007 988 905 766 714 703 594	913 944 936 917 881 879 800 743 727 668	,	1	132 133 134 135 136 137 138 139 140	3.0 10.0 25.0 41.0 52.5 62.5 72.5 83.4 94.0	.735 .457 .218 .104 .066 .083 .128 .223	.638 .472 .236 .111 .073 .095 .140 .254	.721 .463 .226 .099 .062 .046 .128 .250	.702 .457 .220 .089 .050 .076 .114 .248	.701 .451 .214 .076 .035 .059 .098 .233 030	
665 666 67 68 69 70 71 72 73 74 75	2.0 6.0 15.0 27.5 40.0 50.0 59.0 67.5 77.5 87.2 96.8	-1.950 -1.688 -1.028 683 583 491 388 301 194 094 094	-1.509 -1.472 -1.381 -1.267 -1.229 404 331 216 110 061	-1.233 -1.236 -1.179 -1.171 -1.112 -1.093 -1.069 670 220 096 036	-1.050 -1.072 -1.040 -1.050 -1.072 -1.021 -1.020 998 463 117 034	889 925 912 931 975 962 942 940 761 223 050		111111111111111111111111111111111111111	141 142 143 144 145 146 147 148	3.0 10.0 25.0 41.0 52.5 62.5 72.5 84.0 92.0	.734 .445 .218 .104 .078 .100 .140 .218 .106	.737 .464 .236 .111 .083 .109 .147 .258 .119	.726 .455 .226 .101 .072 .097 .140 .272	.719 .450 .221 .092 .065 .090 .135 .283 .123	.713 .448 .219 .086 .058 .084 .129 .287 .123	
H76 77 78 79 80 81 82 83 84 85	2.0 6.0 15.0 27.5 40.0 50.0 59.0 67.5 88.3 94.2	-1.823 -1.485 715 595 518 457 371 297 149	-1.389 -1.362 -1.204 765 656 621 502 409 269	-1.140 -1.134 -1.072 935 728 648 568 440 318	968 979 951 886 704 682 569 452 346	820 842 842 816 676 657 572 441 356		111111111111111111111111111111111111111	150 151 152 153 154 155 156	3.0 10.0 25.0 41.0 52.5 62.5 72.5 84.9	.705 .418 .187 .047 .017 .051 .121	.717 .447 .213 .045 001 .041 .126 006	.707 .142 .209 .031 020 .021 .115 014	.701 .442 .211 .026 030 .012 .117 014	.699 .447 .216 .029 038 .004 .122 005	

TABLE 68

 $\left[\Lambda = -30^{\circ}, \ \delta_{a_{\text{n}}} = 10.0^{\circ}, \ \alpha = -2^{\circ}\right]$

	 			· ·	· · ·	<u>, </u>	- CONF	DE	NTIA	L			•			
<u> </u>	· ·		UPPER	SURPAC		•	:		<u> </u>			LOWER				_
Tube	Per- cent	<u> </u>	1	Mach N			T		Tube	Per-			Mach N	1		
	chord	0.60	0.80	0.85	0.89					chord	0.60	0.80	0.85	0.89		
A 1 2 3 4 5 6 7 8 9 10	2.0 6.0 15.0 27.5 40.0 50.0 67.5 77.5 87.5 96.0	 -0.198 167 108	 -0.223 181 086	-0.223 170 0.86					86 87 88 89 90 91 92 93 94	3.0 10.0 25.0 41.0 52.5 62.5 72.5 84.0 94.0	-0.108 080 024	 -0.101 064 005		 -0.063 029 .020		·
B12 13 14 15 16 17 18 19 20 21 22	2.0 6.0 15.0 27.5 40.0 50.0 59.0 67.5 77.5 88.0 95.3	.352 .047 141 229 269 261 221 170 055 .044	.391 .065 185 300 343 318 261 227 053 .057	.400 .070 203 359 407 357 303 145 055	.401 .075 209 416 544 494 454 064 024				95 96 97 98 99 100 101 102 103	3.0 10.0 25.0 41.0 52.5 62.5 72.5 86.3 94.5	752 367 282 256 185 121 039 .051	644 326 281 195 118 025 .073	961 951 468 218 180 105 014 .081	832 903 813 414 054 036 019 162		
C23 24 25 26 27 28 29 30 31 32 33	2.0 6.0 15.0 27.5 40.0 50.0 59.0 67.5 77.5 88.0 95.3	.337 .068 113 215 275 256 238 180 083 .030	.374 .111 111 258 353 335 287 235 081 .037	.414 .131 099 278 413 337 265 083	.422 .143 091 286 473 543 481 287 085 .049				104 105 106 107 108 109 110 111 112	3.0 10.0 25.0 41.0 52.5 62.5 72.5 85.1 94.6	504 344 301 239 223 143 044 .034	641 482 408 300 244 158 042 .047	693 528 498 419 241 146 032 -046	619 564 523 506 503 200 006 .077		
D34 35 36 37 38 39 40 41 42 43	2.0 15.0 27.5 40.0 50.0 59.0 67.5 77.5 87.5 94.2	.268 113 209 278 279 209 106 001	.335 105 241 345 345 278 051 001	.362 097 253 389 397 331 071 005	.379 089 260 435 504 447 110 020		•		113 114 115 116 117 118 119 120 121	3.0 10.0 25.0 41.0 52.5 62.5 72.5 87.4 94.2	439 308 298 261 221 134 034 .053 .074	,560 ,386 ,365 ,330 ,254 ,161 ,058 -053 -,080	626 423 416 385 296 190 071 .023	583 495 447 445 347 230 104 .037		
E 44 45 46 47 48 49 50 51 52 53 54	2.0 6.0 15.0 27.5 40.0 50.0 67.5 77.5 88.5 95.5	.222 005 157 232 308 306 270 217 124 .103	.269 .016 176 305 407 402 349 301 051	.299 .039 169 320 462 470 405 366 046 .100	.333 .074 145 306 473 582 518 480 079 .094				122 123 124 125 126 127 128 129 130 131	3.0 10.0 25.0 41.0 52.5 62.5 72.5 78.0 85.3 94.1	261 215 221 201 149 106 036 .001 .050	310 262 277 246 185 125 055 012 .044 .088	340 287 311 271 209 134 068 022 .036 .084	372 303 347 294 232 136 086 037 .025		
59 60 61 62	2.0 6.0 15.0 27.5 49.0 50.0 59.0 67.5 86.5 94.6	.205 017 164 257 327 334 311 284 114	.266 .015 171 303 414 428 391 351 123	.301 .043 159 310 460 491 438 395 231	.338 .075 132 294 462 570 523 474 164				132 133 134 135 136 137 138 139 140	3.0 10.0 25.0 41.0 52.5 62.5 72.5 83.4 94.0	261 198 197 167 118 040 .100 .196 .102	323 248 250 213 158 007 .103 .209	360 275 282 239 185 004 .101 .209 .089	394 297 318 268 213 .002 .101 .209 .078		·
G65 66 67 68 69 70 71 72 73 74 75	2.0 6.0 15.0 27.5 40.0 50.0 67.5 77.5 87.2 96.8	.218 .020 151 254 327 324 301 268 .048	.292 .039 142 278 390 422 385 347 310 297	.328 .069 125 276 415 463 417 372 324 321	.363 .102 098 260 415 513 455 408 363 298				141 142 143 144 145 146 147 148 149	3.0 10.0 25.0 41.0 52.5 62.5 72.5 84.0 92.0	220 191 177 136 088 .001 .132 .222 .139	282 254 237 185 139 .031 .127 .228 .132	314 289 273 210 161 .023 .122 .225 .124	337 320 312 238 192 -027 -117 -223 -116		·
H76 77 78 79 80 81 82 83 84 85	2.0 6.0 15.0 27.5 40.0 50.0 67.5 88.3 94.2	.219 .003 114 211 270 264 238 139	.285 .045 - 101 - 225 - 342 - 366 - 266 - 167	.316 .074 085 220 314 362 327 278 181	.342 .101 065 210 308 378 335 280 201	5 46 46 46 46 46 46 46 46 46 46 46 46 46			150 151 152 153 154 155 156 157		278 185 167 171 122 020 .126 .087	342 225 214 231 169 040 .121 .079	380 242 235 270 195 053 .117	407 252 248 332 226 065 .112 .065	مرمر 🌊	

TABLE 69

 $\left[\Lambda = -30^{\circ}, \delta_{\mathbf{a}_{\mathbf{n}}} = 10.0^{\circ}, \alpha = 0^{\circ}\right]$

			UPPEF	SURPAC	E		CONFI	DENTIA 	L		LOWER	SURFAC	В		
	Per-			Mach 1					Per-			Mach N	umber		
Tube	chord	0.60	0.80	0.85	0.89	0.925	0.96	Tube	cent	0.60	0.80	0.85	0.89	0.925	0.96
A 1 2 3 4 5 6 7 8 9 10	2.0 6.0 15.0 27.5 40.0 50.0 59.0 67.5 77.5 87.5 96.0	 -0.233 189 123	 -0.240 185 111	 -0.190 169 094	 -0.230 139 065	 -0.493 311 188	-0.612 -0.673 540	86 87 88 89 90 91 92 93 94	3.0 10.0 25.0 41.0 52.5 62.5 72.5 84.0 94.0		 -0.090 048 .001	-0.093 044 .007	 -0.100 043 .009	 -0.077 025 	 -0.521 348 058
B12 13 14 15 16 17 18 19 20 21 22	2.0 6.0 15.0 27.5 40.0 50.0 59.0 67.5 77.5 88.0 95.3	265 340 343 353 350 318 273 207 086 .034	- 255 - 356 - 356 - 375 - 323 - 324 - 375 - 324 - 375 - 324 - 325 - 325	174 394 550 645 576 411 179 137 058 .061	048 292 495 631 661 632 470 309 095	.036 436 436 573 669 553 553 553	.127 125 356 494 616 799 744 194	95 96 97 98 99 100 101 102 103	3.0 10.0 25.0 41.0 52.5 62.5 72.5 86.3 94.5	088 126 182 190 157 097 017 066 .128	109 162 226 220 178 100 .001 .088 .148	153 201 264 243 190 093 .004 .092 .154	219 285 357 299 185 087 .002 .096	.029 .102 .166	219 346 412 513 575 521 219 083
C23 24 25 26 27 28 29 30 31 32 33	2.0 6.0 15.0 27.5 40.0 50.0 59.0 67.5 77.5 88.0 95.3	099 233 316 356 377 331 296 242 104	054 234 376 477 501 420 386 178 100	.004 197 361 510 646 551 501 143 081	.084 133 310 475 630 713 709 549 010	- 1556 - 1556 - 1557 - 1557 - 1558 -	.222 .000 200 354 507 656 735 677 557 185	104 105 106 107 108 109 110 111 112	3.0 10.0 25.0 41.0 52.5 62.5 72.5 85.1 94.6	036 117 174 170 165 116 019 .053	025 135 211 211 193 145 .017 .064 .134	040 154 241 241 213 170 .019 .067	070 188 294 321 274 235 .020 .061	066 189 302 380 389 337 014 .050	064 173 295 368 475 420 263 098 063
D34 35 36 37 38 39 40 41 42 43	2.0 15.0 27.5 40.0 50.0 67.5 77.5 87.5 94.2	120 303 344 382 359 283 099 017 .057	053 345 436 500 454 374 107 014 .065	002 334 460 595 544 456 116 014	.067 293 435 588 659 574 174 025		.196 179 327 474 595 593 548 349 146	113 114 115 116 117 118 119 120 121	3.0 10.0 25.0 41.0 52.5 62.5 72.5 87.4 94.2	026 095 163 180 152 102 017 .069 .078	025 095 193 218 185 123 027 .076 .096	044 107 215 244 206 139 033 .065 .098	073 128 252 298 259 183 059 .053 .085	087 .043	093 125 280 348 330 297 118 .032 .051
E 44 45 46 47 48 49 50 51 52 53 54	2.0 6.0 15.0 27.5 40.0 50.0 57.5 77.5 88.5 95.5	214 296 347 378 407 380 328 280 089 .077	175 316 423 501 566 513 454 384 109 .076	144 280 416 523 654 670 627 418 091 .075	018 203 359 482 617 695 643 612 306 .029	.076 120 293 423 559 602 568 538 395 214 130		122 123 124 125 126 127 128 129 130 131	3.0 10.0 25.0 41.0 52.5 62.5 72.5 78.0 85.3 94.1	.111 012 100 121 086 057 036 .038 .077 .103	.126 010 120 145 104 072 040 .026 .076 .106	.121 014 131 158 113 083 036 .020 .073 .105	.089 027 155 182 132 103 033 007 .063	159 134 067 043 .012	
F55 56 57 58 59 60 61 62 63 64	2.0 6.0 15.0 27.5 49.0 50.0 59.0 67.5 86.5 94.6	229 303 348 386 423 407 368 330 104	166307405488570541479434095	105 271 391 504 635 674 608 584 080	010 201 341 463 597 719 667 652 124	.080 126 279 407 543 658 607 598 359 192		132 133 134 135 136 137 138 139 140	3.0 10.0 25.0 41.0 52.5 62.5 72.5 83.4 94.0	.106 .000 080 089 054 014 .144 .223	.110 003 101 113 068 036 .156 .240	.103 009. 113 127 077 050 .159 .246	.070 031 138 149 095 074 .158 .246	049 164 177 119 104 .151	
G65 66 67 68 69 70 71 72 73 74	2.0 6.0 15.0 27.5 40.0 50.0 59.0 67.5 77.5 87.2 96.8	186 276 320 370 413 411 371 336 306 290	101 253 346 435 519 520 462 423 382 240	046220333441559596531492450160	.040 158 291 405 535 648 592 553 493 175 008	.116 093 240 360 488 610 614 565 502 243 026		141 142 143 144 145 146 147 148 149	3.0 10.0 25.0 41.0 52.5 62.5 72.5 84.0 92.0	.118 006 069 067 026 .008 .171 .243 .150	.113 023 101 097 048 018 .175 .256 .152	.110 030 116 113 061 036 .177 .257	.083 052 142 132 079 051 .173 .255	156 100 084 .161	
H76 77 78 79 80 81 82 83 84 85	2.0 6.0 15.0 27.5 40.0 50.0 59.0 67.5 88.3 94.2	107 217 250 303 334 337 303 271 136	032 195 256 336 385 401 347 289 187	.009 168 247 338 396 430 372 316 213	.069 124 220 328 385 435 387 304 245	.129 072 179 311 376 410 388 307 257		150 151 152 153 154 155 166 157	3.0 10.0 25.0 41.0 52.5 62.5 72.5 84.9	.036 029 086 120 083 024 .148	.031 036 113 166 124 061 .154 .073	.030 036 123 191 145 079 155 .068	.016 041 135 225 173 078 .151 .065	138 261 218 072 .153	

TABLE 70

 $\begin{bmatrix} \Lambda = -30^{\circ}, \delta_{\mathbf{a_n}} = 10.0^{\circ}, \alpha = 2^{\circ} \end{bmatrix}$ CONFIDENTIAL

			TIN DIE	00000			- CONFI	DENTI	AL		t OMBB	SURFAC	P		
\vdash	Per-		UFFE	Mach !				-	Per-	T		Mach N			
Тире	cent chord	0.60	0.80	0.85	0.89	0.925	0.96	Tube		0.60	0.80	0.85	0.89	0.925	0.96
A 1 2 3 4 5 6 7 8 9 10 11	2.0 6.0 15.0 27.5 40.0 50.0 59.0 67.5 77.5 87.5 96.0	 -0.249 202 136	 -0.224 208 105		 -0.287 191 109	-0.489 351 234	-0.682 765 613	86 87 88 89 90 91 92 93 94	3.0 10.0 25.0 41.0 52.5 62.5 72.5 84.0		 -0.061 032 -014	 -0.073 034 -014	 -0.101 044 .003	 -0.112 053 008	-0.464 -0.464 -3333 070
B12 13 14 15 16 17 18 19 20 21 22	2.0 6.0 15.0 27.5 40.0 50.0 67.5 77.5 88.0 95.3	-1.291 837 535 455 412 356 278 196 104 .020	-1.024 -1.109 -1.049 927 304 318 257 170 075 .046	790 909 924 -1.016 907 430 292 157 050 .070	610 747 812 951 913 857 489 337 261 .057	426 555 684 850 850 850 850 850 850 850 850	290 447 573 728 781 814 848 832 655 450	95 96 97 98 99 100 101 102	3.0 10.0 25.0 41.0 52.5 62.5 72.5 86.3 94.5	.389 .114 047 117 106 062 .004 .077	.361 .106 090 146 128 070 .014 .094 .153	.315 .078 121 174 148 077 .012 .098 .161	.271 .045 170 226 189 106 009 .078 .136	.203 002 235 340 286 143 018 .061	.174 012 228 400 462 394 190 127 028
23 24 25 26 27 28 29 30 31 32 33	2.0 6.0 15.0 27.5 40.0 59.0 67.5 77.5 88.0 95.3	732 601 535 492 463 390 353 209 126 .002	663 697 703 760 706 611 247 193 100	495 600 618 758 834 723 755 152 075 008	357 486 539 686 796 827 632 165 117	208 353 440 596 712 799 848 769 188	098 250 356 513 629 721 825 732 532 261	104 105 106 107 108 109 110 111 112	3.0 10.0 25.0 41.0 52.5 62.5 72.5 85.1 94.6	.327 .106 041 093 103 062 019 .076 .130	.342 .114 052 119 126 075 038 .089 .146	.318 .098 071 144 148 094 062 .083 .142	.290 .078 100 189 192 134 095 .054 .087	.249 .048 136 249 276 212 153 .016	.238 .043 138 271 364 297 243 096 063
D34 35 36 37 38 39 40 41 42 43	2.0 15.0 27.5 40.0 50.0 59.0 67.5 77.5 87.5 94.2	681 504 478 474 425 331 139 029	644 639 675 673 599 447 142 024	496 580 681 782 730 626 134 021	366 507 630 744 718 666 488 073	223 420 550 670 756 669 609 339 017	113 343 475 595 701 661 	113 114 115 116 117 118 119 120	3.0 10.0 25.0 41.0 52.5 62.5 72.5 87.4 94.2	.304 .103 035 093 088 057 .007 .087	.314 .127 042 115 109 070 .008 .093	.292 .115 060 136 130 090 004 .085	.269 .100 082 170 169 124 029 .071	.231 .077 109 215 221 172 067 .049	.213 .073 113 235 255 238 115 .030 .060
E 44 45 46 47 48 49 50 51 52 53 54	2.0 6.0 15.0 27.5 40.0 50.0 67.5 77.5 88.5 95.5	825 650 554 514 503 453 380 262 145 .0040	783 850 725 761 772 700 581 259 148 .049 .055	587 710 663 745 822 767 761 624 219 .047	418 549 567 669 747 679 547 416 261	265 265 265 265 265 265 265 265 265 265		122 123 124 125 126 127 128 129 130	3.0 10.0 25.0 41.0 52.5 62.5 72.5 78.0 85.3 94.1	.402 .173 .017 043 027 012 .016 .031 .100	.428 .200 .024 045 029 013 .009 .034 .102	.402 .183 .008 063 043 024 006 .030 .095	.364 .157 017 091 067 050 040 .056 .048	.329 .134 045 124 101 092 097 080 015 036	
F55 56 57 58 59 60 61 62 63 64	2.0 6.0 15.0 27.5 49.0 50.0 59.0 67.5 86.5 94.6	825 647 550 517 514 475 417 351 100	-773 -801 -696 -719 -763 -690 -637 -399 -109	580 673 639 708 799 794 773 737 120	408 530 548 640 740 720 705 706 398 225	- 258 - 453 - 561 - 669 - 663 - 648 - 642 - 455 - 396		132 133 134 135 136 137 138 139	3.0 10.0 25.0 41.0 52.5 62.5 72.5 83.4 94.0	.396 .182 .033 013 .003 .050 .154 .250	.418 .205 .039 017 .002 .048 .171 .275	.392 .188 .023 033 008 .034 .175 .279	.354 .163 001 057 026 .013 .176 .275	.319 .141 026 087 053 015 .142 .255	
G65 66 67 68 69 70 71 72 73 74	2.0 6.0 15.0 27.5 40.0 59.0 67.5 77.5 87.2 96.8	737 599 507 494 501 478 428 391 337 115	676 684 608 627 669 578 579 343 127	511 599 554 605 697 737 678 668 404 138 012	355 479 485 559 653 748 708 678 592 156 046	215 366 496 605 705 698 656 590 065		141 142 143 144 145 146 147 148	3.0 10.0 25.0 41.0 52.5 62.5 72.5 84.0 92.0	.392 .166 .037 .000 .026 .067 .194 .265	.403 .182 .034 011 .020 .059 .214 .284 .160	.392 .168 .017 029 .005 .038 .211 .283 .153	.360 .145 005 049 011 .022 .208 .281	.332 .125 027 069 026 002 .201 .277 .135	
H76 77 78 79 80 81 82 83 84 85	2.0 6.0 15.0 27.5 40.0 50.0 59.0 67.5 88.3 94.2	528 478 395 397 385 338 271 163	485 520 448 463 478 478 411 329 228	384 468 431 474 471 496 434 357 256	268 388 377 468 478 473 434 340 287	163 308 316 421 476 481 432 324 322		150 151 152 153 154 155 156 157	3.0 10.0 25.0 41.0 52.5 62.5 72.5 84.9	.308 .123 .003 065 046 .017 .172	334 .145 .000 091 073 004 .182	.322 .140 011 115 098 024 .172 .053	.297 .129 024 140 121 045 .173 .054	.281 .125 031 171 150 053 .174 .062	

TABLE 71

 $\left[\Lambda = -30^{\circ}, \, \delta_{\underline{a}_{\underline{n}}} = 10.0^{\circ}, \, \alpha = 4^{\circ}\right]$

			מום פון	9 977024	n P	<u> </u>	CONF	DENT	AL		7,0972	SURFAC	:R		
	Per-		UPPE	R SURPA	Number			\vdash	Per-	T -	LUMBS	Mach !			
Tube	cent	0.60	0.80	0.85	0.89	0,925	0.96	Tut		0.60	0.80		1	1 0 00E	0.06
A 1 2 3 4 5 6 7 8 9	2.0 6.0 15.0 27.5 40.0 50.0 67.5 77.5 87.5 96.0	 -0.203 181 132		 -0.528 546 502 		 -0.396 385 340		8889999999	3.0 7 10.0 8 25.0 9 41.0 52.5 1 62.5 72.5 84.0	 -0.023 025 .011	 -0.067 054 022	0.85 -0.109 088 058 		0.925 	0.96 -0.369 316 107
B12 13 14 15 16 17 18 19 20 21 22	2.0 6.0 15.0 27.5 40.0 50.0 67.5 77.5 88.0 95.3	-1.166 -1.173 -1.013 648 474 383 290 198 101	625 634 603 633 609 571 512 440 318 165	560 558 518 533 551 553 541 499 390 236	782 738 648 572 570 535 511 435 380 358	787 870 874 884 799 664 580 527 368	640 756 806 841 883 838 852 795 730 554	99 99 100 100 100 100	10.0 25.0 41.0 52.5 62.5 72.5 86.3	.606 .278 .034 061 068 036 .017 .078 .121	.568 .258 002 103 111 071 006 .054 .083	.547 .242 026 138 144 102 034 .018	.507 .213 064 189 189 131 051 .000	.475 .192 095 260 270 186 065 .003	.463 .196 091 272 346 315 182 117 039
C23 24 25 26 27 28 29 30 31 32 33	2.0 6.0 15.0 27.5 40.0 50.0 67.5 77.5 88.0 95.3	-1.585 895 750 618 541 446 359 134 019	-1.087 -1.158 -1.060925391473281179044	852 965 968 911 838 495 394 263 160 072	653 792 818 862 811 639 608 515 336 137	- 534 - 668 - 784 - 849 - 849 - 849 - 7644 7644	387 545 592 671 765 781 867 767 767 274	10: 10: 10: 10: 10: 11: 11:	10.0 25.0 41.0 52.5 62.5 72.5 85.1	.514 .278 .068 031 056 028 .015 .067	.548 .275 .057 057 086 056 002 .073 .123	.532 .265 .044 077 114 079 026 .063 .101	.504 .246 .015 116 162 119 065 .058 .105	.484 .232 002 153 225 185 127 .018	,481 .238 .008 154 253 233 168 048 022
D34 35 36 37 38 39 40 41 42 43	2.0 15.0 27.5 40.0 50.0 59.0 67.5 77.5 87.5	-1.284 687 588 541 468 363 148 039 .014	-1.030 -1.054 964 848 416 409 137 019 .041	811 913 945 924 901 581 122 .011	627 772 826 917 948 809 227 054 .004	501 668 733 832 910 832 456 344 161	381 556 630 737 814 798 579 452 269	11: 11: 11: 11: 11: 11: 12: 12:	10.0 25.0 41.0 52.5 62.5 72.5 87.4	.528 .260 .070 022 038 019 .024 .078	.516 .280 .068 037 054 032 .015 .104*	.505 .275 .059 .052 071 046 .001 .121	.476 .254 .032 092 120 097 031 .068	.459 .244 .019 119 158 141 076 .022 .020	.454 .251 .030 115 167 162 093 .011
E 44 45 46 47 48 49 50 51 52 53	2.0 6.0 15.0 27.5 40.0 50.0 57.5 77.5 88.5 95.5	722 617	-1.182 -1.225 -1.153 -1.098 -1.025 669 365 269 135 .035	917 999 975 993 962 942 905 682 193 063 035	724 836 838 874 831 816 703 594 493 386 310	546 685 703 761 729 725 692 586 515 478 407		122 123 124 125 126 126 126 130	10.0 25.0 41.0 52.5 62.5 72.5 78.0 85.3	.590 .312 .111 .020 .014 .014 .040 .057 .083	.589 .332 .121 .022 .019 .014 .060 .102	.570 .319 .111 .012 .011 .013 .035 .048 .104	.546 .302 .092 012 016 022 011 004 .043	.518 .283 .072 040 058 066 063 054	
F55 56 57 58 59 60 61 62 63 64	2.0 6.9 15.0 27.5 49.0 50.0 59.0 67.5 86.5 94.6	813 713	-1.183 -1.191 -1.123 -1.037 948 737 464 363 068 020	910 969 953 970 937 976 836 651 248 065	719 813 821 860 843 831 823 724 536	553 665 693 746 782 738 739 729 576 537		132 133 134 135 136 137 138	10.0 25.0 41.0 52.5 62.5 72.5 83.4	.581 .318 .123 .046 .040 .081 .097 .252	.586 .337 .133 .048 .046 .092 .099 .291	.567 .327 .127 .041 .043 .091 .096 .309 .125	.542 .310 .110 .022 .026 .074 .080 .300	.51 ¹ 4 .290 .090 002 .003 .052 .053 .284	-
G65 66 67 68 69 70 71 72 73 74 75	2.0 6.0 15.0 27.5 40.0 50.0 59.0 67.5 77.5 87.2 96.8	-1.387 956 656 587 557 504 417 351 282 102	-1.109 -1.136 977 844 787 694 529 419 302 142 110	839 926 895 825 821 853 801 756 381 157 071	665 781 776 778 781 857 807 787 698 195 080	509 640 653 685 708 803 782 757 707 316 100		141 142 143 144 145 146 147	10.0 25.0 41.0 52.5 62.5 72.5	.575 .303 .126 .054 .060 .103 .129 .266	.584 .324 .133 .052 .060 .100 .119 .296 .139	.566 .309 .120 .041 .053 .104 .113 .309	.548 .297 .107 .028 .042 .092 .105 .312 .153	.524 .280 .091 .010 .029 .075 .097 .308 .141	
H76 77 78 79 80 81 82 83 84 85	2.0 6.0 15.0 27.5 40.0 50.0 59.0 67.5 88.3 94.2	-1.009 749 534 480 453 423 362 305 198	952 906 655 578 556 539 452 384 286	739 780 637 571 560 467 392 342	592 664 664 563 584 539 476 365 372	451 548 533 506 556 559 462 350 392		150 151 152 153 154 155 156	3.0 10.0 25.0 41.0 52.5 62.5 72.5 84.9	.509 .252 .080 ~.012 009 .053 .186 .063	.532 .285 .096 026 032 .043 .190 .045	.516 .276 .084 048 054 .023 .184 .038	.503 .272 .079 062 069 .010 .187	.486 .266 .075 079 089 006 .192 .050	

TABLE 72

 $\left[\Lambda = -30^{\circ}, \delta_{\mathbf{a}_{\mathbf{n}}} = 10.0^{\circ}, \alpha = 7^{\circ}\right]$

			שפקון	R SURFA	CR		CON	FIC	ENT	AL —		LOWRE	SURFAC	R		
<u> </u>	Per-		OFFE		Number			1	<u> </u>	Per-		DOWER	Mach N			
Tube	cent	0,60	0.80	0.85	0.89	0.005	0.06	1	Tube	cent	2.60		1	Υ	Γ	
A 1 2 3 4 5 6 7 8 9	2.0 6.0 15.0 27.5 40.0 50.0 59.0 67.5 77.5 87.5	 -0.508 439 361	 -0.564 590 557	 -0.569 601 577	 -0.560 601 595	0.925 -0.572 611 611	0.96 -0.648 623 584		86 87 88 89 90 91 92 93 94	3.0 10.0 25.0 41.0 52.5 62.5 72.5 84.0 94.0	0.60 -0.022 041 027		0.85 -0.124 124 117	0.89 -0.164 152 141 	0.925 -0.226 169 140 	0.96 -0.277 239 123
B12 13 14 15 16 17 18 19 20 21 22	96.0 2.0 6.0 15.0 27.5 40.0 50.0 59.0 67.5 77.5 88.0 95.3	651 670 677 732 700 626 546 453 344 227	543 557 549 579 605 616 511 586 517 402	557 574 556 587 609 618 625 669 567 1449	552 571 547 561 571 577 593 592 581 466	581 607 568 573 581 589 599 599 595 525	979 967 960 881 838 786 708 694 628		95 96 97 98 99 100 101 102 103	3.0 10.0 25.0 41.0 52.5 62.5 72.5 86.3 94.5	.739 .399 .110 021 051 041 006 .025	.755 .424 .098 054 096 087 047 030 051	.732 .395 .071 090 136 122 075 056 081	.709 .375 .056 129 179 153 095 066 083	.696 .369 .036 159 236 197 113 065 074	.702 .387 .062 136 227 232 155 086 074
23 24 25 26 27 28 29 30 31 32 33	2.0 6.0 15.0 27.5 40.0 50.0 67.5 77.5 88.0 95.3	11 - 655 4 85 33 8 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1	-1.419 -1.357 -1.079 739 566 491 428 360 325 263	-1.249 -1.161 -1.066774610518464391372332	-1.056 -1.065 993 944 726 603 467 370 365 325	889 939 923 885 854 728 608 490 424 390	750 813 812 849 883 864 873 813 685		104 105 106 107 108 109 110 111 112	3.0 10.0 25.0 41.0 52.5 62.5 72.5 85.1 94.6	.721 .426 .169 .028 005 004 .017 .066	.726 .439 .177 .016 045 045 006 .020	.706 .425 .157 012 081 036 .000	.689 .411 .141 037 120 121 070 015	.681 .406 .136 054 154 164 043 .005	.691 .425 .163 030 134 155 110 068 022
D34 35 36 37 38 39 40 41 42 43	2.0 15.0 27.5 40.0 50.0 59.0 67.5 77.5 87.5 94.2	-1.906 -1.007 672 567 473 375 172 097 064	-1.443 -1.315 -1.228 828 643 496 153 108 074	-1.182 -1.154 -1.085 -1.033 805 664 190 177 160	981 -1.006 -1.018 983 953 791 315 262 247	825 895 925 945 913 871 428 323 309	698 788 831 864 895 844 564 342 323		113 114 115 416 117 118 119 120 121	3.0 10.0 25.0 41.0 52.5 62.5 72.5 87.4 94.2	.713 .426 .185 .056 .015 .011 .040 .087	.698 .444 .195 .055 .010 .012 .041 .096 .067	.679 .427 .177 .028 022 032 .003 .052 .018	.663 .415 .062 .005 054 068 035 .021	.654 .411 .158 007 083 097 062 015 056	.665 .430 .183 .019 051 074 040 045
E 44 45 46 47 48 49 50 51 52 53	2.0 6.0 15.0 27.5 40.0 50.0 59.0 67.5 77.5 88.5 95.5	-1.937 -1.825 -1.261 705 581 487 382 289 188 088 066	-1.550 -1.528 -1.396 -1.281 899 747 630 503 313 160 118	-1.275 -1.296 -1.209 -1.130 895 741 672 623 550 487 410	-1.092 -1.133 -1.075 -1.019 861 735 671 634 609 592 509	917 974 953 912 872 675 642 627 612			122 123 124 125 126 127 128 129 130 131	3.0 10.0 25.0 41.0 52.5 62.5 72.5 78.0 85.3 94.1	.751 .472 .227 .104 .074 .056 .064 .071 .094	.746 .484 .243 .114 .088 .067 .074 .084 .114	.731 .469 .288 .096 .041 .039 .044 .063	.723 .463 .222 .083 .048 .014 004 009 .006	.710 .454 .213 .070 .035 005 036 047 032 059	
F55 56 57 58 59 60 61 62 63 64	2.0 6.0 15.0 27.5 49.0 50.0 59.0 67.5 86.5 94.6	-1.654 -1.594 -1.243 845 619 447 405 314 119 073	-1.568 -1.518 -1.418 -1.327 -1.114 782 672 543 214 106	-1.216 -1.144	-1.102 -1.116 -1.084 -1.034 -1.012 929 831 767 699 627	925 954 954 926 892 887 823 761 736 683		,	132 133 134 135 136 137 138 139 140	3.0 10.0 25.0 41.0 52.5 62.5 72.5 83.4 94.0	.746 .475 .242 .131 .101 .129 .164 .275	.748 .491 .259 .146 .117 .151 .184 .319	.734 .478 .248 .131 .104 .140 .170 .325 .103	.726 .474 .243 .121 .091 .126 .156 .307	.713 .465 .234 .108 .077 .113 .142 .298	
G65 66 67 68 69 70 71 72 73 74 75	2.0 6.0 15.0 27.5 40.0 50.0 59.0 67.5 77.5 87.2 96.8	-1.857 -1.768 -1.184 739 614 534 437 358 262 129 092	-1.537 -1.502 -1.409 -1.305 -1.267 -1.005 481 384 271 174 148	-1.199	-1.078 -1.091 -1.059 -1.065 -1.098 -1.051 -1.044 600 216 146	902 932 918 936 979 998 961 977 827 359 204			141 142 143 144 145 146 147 148 149	3.0 10.0 25.0 41.0 52.5 62.5 72.5 84.0 92.0	.751 .471 .249 .143 .127 .156 .197 .302 .142	.754 .486 .265 .152 .136 .188 .207 .348 .162	.739 .473 .252 .138 .124 .164 .193 .350 .158	.735 .471 .250 .133 .119 .159 .186 .353 .153	.726 .464 .244 .126 .114 .154 .176 .358 .154	
H76 77 78 79 80 81 82 83 84 85	2.0 6.0 15.0 27.5 40.0 50.0 59.0 67.5 88.3 94.2	-1.901 -1.616 739 627 554 501 428 364 262	-1.420 -1.398 -1.217 760 674 655 541 485 389	-1.152 -1.161 -1.061 884 716 652 593 470 466	986 -1.015 943 877 716 676 576 463 509	823 871 823 796 676 657 568 431 528	•		150 151 152 153 154 155 156 157	3.0 10.0 25.0 41.0 52.5 62.5 72.5 84.9	.726 .429 .206 .077 .057 .106 .167	.734 .453 .227 .074 .044 .103 .174 .028	.720 .445 .214 .057 .023 .087 .168 .025	.720 .448 .219 .054 .017 .086 .180 .035	.712 .448 .221 .049 .010 .084 .201 .057	

TABLE 73

 $\begin{bmatrix} \Lambda = -45^{\circ}, \ \delta_{\mathbf{a}_{\mathbf{n}}} = -10.0^{\circ}, \ \alpha = -2^{\circ} \end{bmatrix}$ $= \begin{bmatrix} \Lambda = -45^{\circ}, \ \delta_{\mathbf{a}_{\mathbf{n}}} = -10.0^{\circ}, \ \alpha = -2^{\circ} \end{bmatrix}$

			UPPER	SURPAC	E		CONFIDE	NTIA	L		LOWER	SURPAC	E (
	Per-			Mach 1					Per-			Mach N	umber		
тире	cent chord	0.60	0.80	0.89	0.925	0.96		Tube	cent chord	0,60	0,80	0,89	0.925	0.96	
A 1 2 3 4 5 6 7 8 9 10 11	2.0 6.0 15.0 27.5 40.0 50.0 59.0 67.5 77.5 87.5 96.0	 -0.082 055						86 87 88 89 90 91 92 93	3.0 10.0 25.0 41.0 52.5 62.5 72.5 84.0 94.0	-0.048 016	 -0.037 011	-0.015 .001	0,925 0,000 .015 	- 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1	•
B12 13 14 15 16 17 18 19 20 21 22	2.0 6.0 15.0 27.5 40.0 50.0 67.5 77.5 88.0 95.3	135 154 151 129 086 046	176 194 185 156 110 059 .015	 225 239 220 182 123 065 .012	 277 304 267 207 120 059 .016			95 96 97 98 99 100 101 102 103	3.0 10.0 25.0 41.0 52.5 62.5 72.5 86.3 94.5	 141 158 119 085 032 .014		 441 199 115 075 026 .019	 524 277 136 075 021 -024 -058		
C23 24 25 26 27 28 29 30 31 32 33	2.0 6.0 15.0 27.5 40.0 50.0 67.5 77.5 88.0 95.3	.418 .175 003 103 146 141 132 091 055 .028	.452 .202 005 130 186 176 164 115 075 .005	.463 .216 003 155 233 232 207 147 100 014	.473 .228 .006 159 255 302 270 200 133 036	.478 .235 .017 153 253 308 296 253 221 138		104 105 106 107 108 109 110 111	3.0 10.0 25.0 41.0 52.5 62.5 72.5 85.1 94.6	605 426 293 	-1.027 484 397 128 068 015 .028	927 465 427 165 083 026 .018	-,914 -,713 -,406 -,289 -,154 -,040	882 731 460 303 255 172 117	
D34 35 36 37 38 39 40 41 42 43	2.0 15.0 27.5 40.0 50.0 59.0 67.5 77.5 87.5 94.2	.325 003 078 131 139 103 069 .000	344 .001 088 151 163 125 066 019	.347 .001 094 165 183 161 087 043	.348 .002 095 170 191 190 101 061 022	.342 001 101 181 191 191 103 068 027		113 114 115 116 117 118 119 120 121	3.0 10.0 25.0 41.0 52.5 62.5 72.5 87.4 94.2	598 316 260 224 181 065 .007	766 363 318 273 222 089 015 .009	798 365 345 307 258 119 045 017	791 610 401 314 250 129 040 034	780 621 423 412 271 132 042 035	
E 44 45 46 47 48 49 50 51 52 53 54	2.0 6.0 15.0 27.5 40.0 50.0 67.5 77.5 88.5 95.5	.333 .140 .000 072 118 122 108 085 049 .089	.347 .152 .001 080 131 138 125 101 061 .078	.347 .147 007 089 146 155 144 070 .072	.347 .150 005 089 149 158 150 136 073 .072	.321 .135, 023 104 164 168 159 164 113 .064 006		122 123 124 125 126 127 128 129 130 131	3.0 10.0 25.0 41.0 52.5 62.5 72.5 78.0 85.3 94.1	478 295 250 214 167 129 082 042 007	672 342 300 254 194 152 101 057 019	695 321 359 300 215 169 119 072 035 009	681 423 381 333 234 167 101 076 037 014	667 462 401 312 205 135 089 051 020	3
F55 56 57 58 59 60 61 62 63 64	2.0 6.0 15.0 27.5 49.0 50.0 59.0 67.5 86.5 94.6	 .150 .014 058 097 092 068 045 .027	 .159 .014 064 108 104 079 054 .027	 .157 .007 075 123 117 090 068 .022 005	 ,160 ,008 077 126 121 093 070 ,023 008	 .143 009 096 144 138 108 087 .016 019		132 133 134 135 136 137 138 139 140	3.0 10.0 25.0 41.0 52.5 62.5 72.5 83.4 94.0		 336 288 256 225 177 143 076 005				
G65 66 67 68 69 70 71 72 73 74 75	2.0 6.0 15.0 27.5 40.0 59.0 67.5 77.5 87.2 96.8	.357 .162 .036 035 074 068 035 013 .148 039	.370 .171 .037 040 084 077 041 025 .154 024	.371 .169 .034 053 095 089 053 041 .152 024	.380 .177 .036 050 098 092 055 042 .149 026	.370 .168 .027 061 112 105 069 055 .137 030		141 142 143 144 145 146 147 148 149	3.0 10.0 25.0 41.0 52.5 62.5 72.5 84.0 92.0	478 277 234 208 185 145 142 096 025	516 307 265 238 209 156 160 107 032	495 311 282 257 231 186 183 123 042	486 304 324 270 223 187 194 128 045	448 314 427 290 247 191 201 154 057	
H76 77 78 79 80 81 82 83 84 85	2.0 6.0 15.0 27.5 40.0 50.0 67.5 88.3 94.2	.305 .127 .018 043 079 086 058 016 .051	.323 141 .024 047 093 102 068 020 .050	.331 .148 .027 052 106 117 081 029 .046	.342 .161 .036 047 106 121 082 029 .047 .039	.348 .164 .038 047 115 137 090 032 .037 .022		150 151 152 153 154 155 156 157	3.0 10.0 25.0 41.0 52.5 62.5 72.5 84.9	366 213 .337 197 178 142 125 010	395 215 .119 217 200 160 141 019	399 206 121 237 224 179 157 038	400 197 131 244 255 187 162 044	386 184 105 220 260 205 186 048	,

TABLE 74

 $\left[\Lambda = -45^{\circ}, \delta_{\mathbf{a}_{\mathbf{n}}} = -10.0^{\circ}, \alpha = 2^{\circ}\right]$

			गत्रवद्या	SURPAG	er ·	.	CONFI	DENTIA	VL —		LOWER	SURPAC	B		
	Per-		OI I AI	Mach N				-	Per-			Mach N			
Tube	cent chord	0.60	0,80	0.89	0.925	0.96		Tube	cent	0,60	0.80	0.89	0,925	0.96	Ι
A 1 2 3 4 5 6 7 8 9 10	2.0 6.0 15.0 27.5 40.0 50.0 59.0 67.5 77.5 87.5 96.0			-0.080 049	 -0.052 027	-0.066 022		86 87 88 89 90 91 92 93	3.0 10.0 25.0 41.0 52.5 62.5 72.5 84.0 94.0	 -0.031 008	0.031	-0.032 004	-0.029		
B12 13 14 15 16 17 18 19 20 21 22	2.0 6.0 15.0 27.5 40.0 50.0 59.0 67.5 77.5 88.0 95.3	 237 217 192 165 101 060 .017	 250 234 208 172 116 059 -017	- 1 - 238 - 165 - 163 - 142 099 047 020	 5166 388 168 055 034 010			95 96 97 98 99 100 101 102 103	3.0 10.0 25.0 41.0 52.5 62.5 72.5 86.3 94.5	 075 098 073 058 003 003		 141 140 109 081 .000 .033	 175 159 126 080 005 -038 -089		
C23 24 25 26 27 28 29 30 31 32 33	2.0 6.0 15.0 27.5 40.0 50.0 59.0 67.5 77.5 88.0 95.3	553 436 364 312 277 221 191 133 083	559 499 506 403 327 251 210 146 090	- 451 - 444 - 489 - 534 - 561 - 306 - 138 - 015 - 015	- 378 - 397 - 450 - 504 - 534 - 505 - 379 - 199 - 016	- 316 - 359 - 421 - 468 - 521 - 497 - 388 - 358 - 358		104 105 106 107 108 109 110 111	3.0 10.0 25.0 41.0 52.5 62.5 72.5 85.1 94.6	210 .028 065 065 026 .026 .063	.216 .023 086 081 023 .016 .058	.204 .007 119 098 037 .004	.190 004 142 132 061 014 .037	.186 006 147 198 149 096 066	
D34 35 36 37 38 39 40 41 42 43	2.0 15.0 27.5 40.0 50.0 59.0 67.5 77.5 87.5 94.2	352 297 279 274 246 186 086 024 .021	354 339 327 326 293 226 104 033 .004	- 324 - 363 - 358 - 358 - 337 - 282 - 147 - 074 - 030	- 287 - 350 - 353 - 376 - 342 - 283 - 283 - 150 - 087 - 045	249 341 360 375 352 298 145 085 047		113 114 115 116 117 118 119 120 121	3.0 10.0 25.0 41.0 52.5 62.5 72.5 87.4 94.2	.132 .024 058 093 090 031 .043	.129 .019 071 109 106 042 .033	.114 .007 087 128 128 061 .019	.103 002 096 137 138 075 .003 009	.087 011 104 136 135 072 005 021	
E 44 45 46 47 48 49 50 51 52 53	2.0 6.0 15.0 27.5 40.0 50.0 59.0 67.5 77.5 88.5 95.5	307 284 273 258 254 225 192 079 050	315 309 308 294 287 256 218 163 101 .037 009	- 300 - 314 - 339 - 320 - 312 - 280 - 246 - 205 - 126 - 026	259 300 323 314 274 243 224 130 017 026	247 302 341 340 323 277 229 196 173 .012 031		122 123 124 125 126 127 128 129 130 131	3.0 10.0 25.0 41.0 52.5 62.5 72.5 78.0 85.3 94.1	.152 .026 060 092 075 062 038 015	.152 .022 076 110 093 076 053 020 .042	.145 .009 096 133 111 092 065 017 .034	- 126 - 008 - 114 - 152 - 124 - 103 - 073 - 013 - 030 034	105 024 140 181 146 118 069 .001 .024	
F55 56 57 58 59 60 61 62 63 64	2.0 6.0 15.0 27.5 49.0 50.0 59.0 67.5 86.5 94.6	 254 243 232 221 188 162 059 .013		 299 302 288 270 235 218 066 .005	- 282 - 291 - 291 - 273 - 235 - 222 - 059 009	- 280 - 316 - 319 - 296 - 258 - 247 - 058 - 013		132 133 134 135 136 137 138 139 140	3.0 10.0 25.0 41.0 52.5 62.5 72.5 83.4 94.0	 .020 066 102 109 092 083 081	.016 081 122 131 111 101 094 .014	.007 096 145 152 133 119 104	- 008 - 111 - 163 - 169 - 147 - 134 - 116		
G65 66 67 68 69 70 71 72 73 74	2.0 6.0 15.0 27.5 40.0 50.0 59.0 67.5 77.5 87.2 96.8	188 207 197 191 182 151 015 .089 043	199 231 223 218 209 174 150 017 .087 036	194 246 246 241 230 193 174 027 038 .036	160 229 245 261 234 196 178 050 .089 034	- 143 - 229 - 251 - 252 - 242 - 206 - 192 - 082 - 048 - 022		141 142 143 144 145 146 147 148 149	3.0 10.0 25.0 41.0 52.5 62.5 72.5 84.0 92.0	.132 .005 072 109 118 109 115 098 010	.149 .008 080 122 130 121 129 110 018	.159 .009 087 133 143 144 128 029	.152 .002 095 140 151 148 153 140	.152 001 104 147 158 158 166 173 052	-
H76 77 78 79 80 81 82 83 84 85	2.0 6.0 15.9 27.5 40.0 50.0 59.0 67.5 88.3 94.2	168 195 171 164 159 154 093 043 .038	174 216 187 183 178 158 107 053 .031	170 222 198 196 196 177 120 064 .024	135 200 189 191 201 184 122 063 .024	-113 -191 -192 -181 -198 -207 -130 -072 -016 -028		150 151 152 153 154 155 156 157	3.0 10.0 25.0 41.0 52.5 62.5 72.5 84.9	.134 .028 .281 119 126 106 105 .010	.158 .048 022 134 146 121 118 .001	.177 .065 .081 .147 .165 .130 .014	.178 .072 086 155 181 142 134 019	.185 .084 070 155 214 155 141 021	

TABLE 75

 $\left[\Lambda = -45^{\circ}, \, \delta_{\mathbf{a}_{\mathbf{n}}} = -10.0^{\circ}, \, \alpha = 7^{\circ}\right]$

			ILDED	R SURPA	CP.		_ CONFID	ENTI	AL		1,03020	SURFAC	'R		
\vdash	Per-	Γ	0116		Number			<u> </u>	Per-		DOWBI	Mach N			
Tube	cent chord	0.60	0.80	0.89	0.925	0.96	\vdash	Tube	cent	0.60	0.80	Υ	т	1 000	· -
A 1 2 3 4 5 6 7 8 9 10 11	2.0 6.0 15.0 27.5 40.0 50.0 59.0 67.5 77.5 87.5 96.0	 -0.125 095	 -0.329 278	 	 -0.479 	 -0.559 547		86 87 88 89 90 91 92 93 94	3.0 10.0 25.0 41.0 52.5 62.5 72.5 84.0 94.0	 -0.022 .007			0,925	0.96	
B12 13 14 15 16 17 18 19 20 21 22	2.0 6.0 15.0 27.5 40.0 50.0 57.5 77.5 88.0 95.3	662 546 404 310 219 130				 736 748 732 697 643 528 347		95 96 97 98 99 100 101 102 103	3.0 10.0 25.0 41.0 52.5 62.5 72.5 86.3 94.5		 ,006 ,068 ,072 ,074 ,046 ,032 ,132	 045 113 124 122 092 079			
C23 24 25 26 27 28 29 30 31 32 33	2.0 6.0 15.0 27.5 40.0 50.0 67.5 77.5 88.0 95.3	801813753685536405322227164098	620 805 607 568 507 475 408 316 250 167	799 778 727 664 588 504 485 385 294 207	751 763 713 694 652 562 511 411 326 240	830 843 784 754 718 573 530 364 325 235		104 105 106 107 108 109 110 111 112	3.0 10.0 25.0 41.0 52.5 62.5 72.5 85.1 94.6	.638 .370 .137 .010 .011 .015	.545 .381 .130 024 022 020 012	.670 .393 .126 058 058 054 054	.670 .393 .124 074 072 073 072		
37	2.0 15.0 27.5 40.0 50.0 59.0 67.5 77.5 87.5 94.2	-1.499 605 467 411 339 243 140 096 079	-1.373 855 464 430 349 284 162 122 095	-1.238 -1.074 750 311 310 276 168 136 122	-1.139 -1.042 969 637 385 252 131 109 100	-1.031 956 932 832 428 305 196 132 109		113 114 115 116 117 118 119 120 121	3.0 10.0 25.0 41.0 52.5 62.5 72.5 87.4 94.2	.548 .348 .162 .059 .023 .033 .053 .017	.543 .347 .162 .053 .010 .017 .034	.539 .350 .163 .043 .003 .005 .040	.537 .349 .163 .052 001 .002 .034 014		
E 44 45 46 47 48 49 50 51 52 53	2.0 6.0 15.0 27.5 40.0 50.0 59.0 67.5 77.5 88.5 95.5	-1.520 -1.278 663 450 376 310 238 187 141 098 092	-1.381 -1.353 998 468 389 334 262 208 157 100 092	-1.268 -1.203 -1.136 743 394 342 264 219 153 107 097	-1.140 -1.100 -1.007 899 536 328 279 265 192 126 113	-1.038 -1.002 948 948 758 332 269 271 207 125 122		122 123 124 125 126 127 128 129 130	3.0 10.0 25.0 41.0 52.5 62.5 72.5 78.0 85.3 94.1	.539 .332 .149 .060 .034 .017 .018 .036 .051	.548 .342 .158 .062 .036 .011 .018 .035 .053	.545 .340 .156 .054 .031 .008 .016 .035 .053	.543 .338 .154 .052 .030 .007 .015 .035	0.534 .332 .147 .044 .025 .006 .014 .034 .049	
58 59 60 61 62 63	49.0 50.0 59.0 67.5	 -1.127 568 442 344 273 197 136 049 036		 -1.201 -1.057 504 392 291 218 162 062 050	cor	986 928 858 565 347 239 147 059 051		132 133 134 135 136 137 138 139 140	3.0 10.0 25.0 41.0 52.5 62.5 72.5 83.4 94.0	 .321 .140 .044 003 017 038 053 .003	 .334 .149 .045 004 023 046 066	.33 ⁴ .1 ⁴ 9 .0 ⁴ 0 013 033 058 076 003	 .334 .149 .038 016 039 067 078 004	 .329 .144 .032 021 047 075 081 002	
G65 66 67 68 69 70 71 72 73 74 75	2.0 6.0 15.0 27.5 40.0 50.0 59.0 67.5 77.5 87.2 96.8	-1.563 751 508 382 307 227 155 089 023 066 038	-1.233 -1.190 706 422 332 249 169 102 026 052 .028	-1.218 -1.075 1.027 460 350 268 176 113 033 051 .031	-1.094 -1.028 926 557 364 174 110 039 064	989 956 955 755 366 273 184 115 069 .019		141 142 143 144 145 146 147 148 149	3.0 10.0 25.0 41.0 52.5 62.5 72.5 84.0 92.0	.516 .292 .122 .023 017 016 069 069	.534 .314 .137 .032 013 024 071 082 023	.543 .323 .143 .035 .015 079 095 030	.545 .327 .147 .038 011 029 081 101 029	.543 .327 .149 .039 027 084 106 030	
80 81 82 83 84	2.0 6.0 15.0 27.5 40.0 50.0 59.0 67.5 88.3 94.2	-1.275 614 419 319 257 210 149 101 .000 .063	-1.207 -1.160 466 362 293 243 175 115 015 .001	-1.132 877 622 371 313 264 186 118 021 002	-1.015926926460340285192123023001	917 857 676 412 385 337 223 126 032 019		150 151 152 153 154 155 156 157	3.0 10.0 25.0 41.0 52.5 62.5 72.5 84.9	.509 .281 .086 007 052 056 093 002	.537 .316 .161 .003 049 060 103 001	.552 .335 .205 .009 053 066 114 001	.563 .347 .180 .017 052 065 117 .002	.568 .356 .188 .023 051 065 121 .001	

TABLE 76

$\left[\Lambda = -45^{\circ}, \delta_{a_{11}} = 9.8^{\circ}, \alpha = -2^{\circ}\right]$

							CONFIDE								
	· ·		UPPBI	SURPA				<u></u>			LOWER	SURPAC	E		
Tube	Per-			Mach !	lumber	1		Tube	Per- cent			Mach N	umber		
A 1	chord 2.0	0.60	0.80	0.89	0.925	0.96		86	chord 3.0	0.60	0.80	0.89	0.925	0.96	
254567891011	6.0 15.0 27.5 40.0 50.0 59.0 67.5 77.5 87.5 96.0	 -0.096 062	 -0.101 064	 -0.102 065	 -0.092 057	 -0.231 107		87 88 89 90 91 92 93 94	10.0 25.0 41.0 52.5 62.5 72.5 84.0 94.0	 -0.042 013	 -0.038 008	-0.031	 -0.023 .000	 -0.056 019	,
B12 13 14 15 16 17 18 19 20 21 22	2.0 6.0 15.0 27.5 40.0 50.0 67.5 77.5 88.0 95.3	 160 176 145 098 052 .021						95 96 97 98 99 100 101 102 103	3.0 10.0 25.0 41.0 52.5 62.5 72.5 86.3 94.5	 160 150 114 080 024 .017	 137 153 119 083 025 .019 .058	 170 136 110 079 023 .021		 366 349 266 160 077 029 -007	
C23 24 25 26 27 28 29 30 31 32 33	2.0 6.0 15.0 27.5 40.0 50.0 67.5 77.5 88.0 95.3	.311 .095 065 145 182 159 156 108 061	.336 .098 071 179 223 205 187 129 081 .012	.345 .106 083 225 289 267 233 160 106 009	.356 .118 074 234 317 352 323 240 150 041	.368 .130 060 212 296 358 339 287 258 160		104 105 106 107 108 109 110 111 112	3.0 10.0 25.0 41.0 52.5 62.5 72.5 85.1 94.6	535 336 237 113 045 .000	654 436 322 128 056 006	647 451 436 131 058 011	649 453 426 282 092 028	630 453 407 386 320 211 135	
D34 35 36 37 38 39 40 41 42 43	2.0 15.0 27.5 40.0 50.0 59.0 67.5 77.5 87.5 94.2	.258 064 127 175 176 119 097 003	.250 068 146 200 203 165 083 025 .016	.254 077 163 228 236 199 103 051 006	.259 081 171 236 246 232 126 080 036	.250 093 201 270 238 221 115 077 036		113 114 115 116 117 118 119 120 121	3.0 10.0 25.0 41.0 52.5 62.5 72.5 87.4 94.2	378 251 208 179 150 049 .020	449 301 252 221 185 069 .004 .014	495 327 272 254 222 108 024 012	522 340 279 259 231 126 084 055	541 371 279 281 208 107 035 041	
E 44 45 46 47 48 49 50 51 52 53	2.0 6.0 15.0 27.5 40.0 50.0 67.5 77.5 88.5 95.5		.212 .035 092 159 210 205 182 135 076 .051	.217 .031 115 188 249 242 211 154 091 .036	.214 .029 121 201 269 270 229 153 092 .035 .002	.211 024 134 219 300 296 274 169 095 .025		122 123 124 125 126 127 128 129 130 131	3.0 10.0 25.0 41.0 52.5 62.5 72.5 78.0 85.3 94.1		303 224 207 180 134 115 083 044 004	319242227199152144113068020007	336 226 229 194 148 156 140 078 025 .008	370 237 239 188 134 139 199 123 041	
P55 56 57 58 59 60 61 62 63 64	2.0 6.0 15.0 27.5 49.0 50.0 59.0 67.5 86.5 94.6			 .040 097 186 248 259 245 224 110	 .039 103 194 264 272 256 245 121	 .034 114 211 292 309 280 263 122 002		132 133 134 135 136 137 138 139 140	3.0 10.0 25.0 41.0 52.5 62.5 72.5 83.4 94.0		 196 181 148 113 033 .033 .098 .040			 233 238 187 141 023 -043 -113 -034	•
G65 66 67 68 69 70 71 72 73 74	2.0 6.0 15.0 27.5 40.0 50.0 59.0 67.5 77.5 87.2 96.8		.256 .069 052 134 194 211 201 188 177 093 .028	.269 .077 057 147 215 236 225 213 196 129	.273 080 058 150 222 247 238 225 206 138	.278 .083 061 161 230 251 251 240 229 150		142 143 144 145 146 147 148 149	3.0 10.0 25.0 41.0 52.5 62.5 72.5 84.0 92.0		256199163123091 .002 .052 .118 .072	273 223 184 141 107 006 .042 .112	263 219 188 143 112 .004 .043 .118 .069	259 214 211 151 123 .003 .035 .113	
H76 77 78 79 80 81 82 83 84 85	2.0 6.0 15.0 27.5 40.0 50.0 59.0 67.5 88.3 94.2		.256 .084 023 086 148 172 162 155 108 042	.275 .098 016 094 155 184 176 173 126	.280 .105 008 086 151 182 171 171 130 058	.285 .112 .002 077 142 188 162 166 137 066		150 151 152 153 154 155 156 157	3.0 10.0 25.0 41.0 52.5 62.5 72.5 84.9		265 151 046 147 105 027 .081	- 278 - 148 - 076 - 174 - 125 - 032 . 084 . 032	266 130 066 191 130 027 .107 .033	266 111 051 207 181 022 .100	

TABLE 77

 $\left[\Lambda = -45^{\circ}, \delta_{a_{n}} = 9.8^{\circ}, \alpha = 2^{\circ}\right]$

							_ CONF	DENTI	AL					•	
			UPPE	SURPA	CE						LOWER	SURFAC	E		
Tube	Per- cent			Mach !	Tedmu	,		Tube	Per- cent			Mach N	umber	.	
	chord	0.60	0.80	0.89	0.925	0.96			chord	0.60	0.80	0.89	0.925	0.96	
A 1 2 3 4 5 6 7 8 9 10	2.0 6.0 15.0 27.5 40.0 59.0 67.5 77.5 87.5 96.0	 -0.107 074	-0.094	 -0.064 046	-0.044 021	 0.145 078		86 87 88 89 90 91 92 93 94	3.0 10.0 25.0 41.0 52.5 62.5 72.5 84.0 94.0	-0.024 .000	 -0.027 001	 -0.039 003	-0.028	 -0.088 035	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
B12 13 14 15 16 17 18 19 20 21 22	2.0 6.0 15.0 27.5 40.0 50.0 59.0 67.5 77.5 88.0 95.3	 254 238 215 173 110 068 -011						95 96 97 98 99 100 101 102 103	3.0 10.0 25.0 41.0 52.5 62.5 72.5 86.3 94.5	 058 081 061 048 011 .040	 085 100 077 059 .002 .033 .071	 123 126 199 172 005 .031	 158 154 121 082 005 -035	 222 251 215 194 121 056 .020	
23 24 25 26 27 28 29 30 31 32	2.0 6.0 15.0 27.5 40.0 50.0 59.0 67.5 77.5 88.0 95.3	815 581 444 359 313 253 215 150 093 003	881 694 599 506 391 281 239 162 104 008	738 678 621 626 624 563 454 193 077 001	638 635 590 631 621 547 524 447 315 083	524 561 547 608 642 576 493 401 375 252		104 105 106 107 108 109 110 111 112	3.0 10.0 25.0 41.0 52.5 62.5 72.5 85.1 94.6	.321 .105 021 052 003 .027 .063	.335 .110 035 073 008 .017	.328 .100 063 102 033 .002 .047	.317 .091 079 	.298 .095 093 197 142 107 086	
034 35 36 37 38 39 40 41 42 43	2.0 15.0 27.5 40.0 50.0 59.0 67.5 77.5 87.5 94.2	553 380 335 282 208 104 034 012	600 452 412 399 345 246 128 046	564 495 482 458 412 301 178 092 041	504 486 491 514 459 337 170 097 050	420 466 504 524 478 396 176 099 051		113 114 115 116 117 118 119 120 121	3.0 10.0 25.0 41.0 52.5 62.5 72.5 87.4 94.2	.239 .095 009 047 054 009 .057	.243 .096 015 060 067 019 .043 .034	.229 .087 .028 .078 .087 .087 .038 .024	.221 .089 034 085 097 	.199 .068 047 096 107 065 .000 022	
44 45 46 47 48 49 50 51 52 53	2.0 6.0 15.0 27.5 40.0 50.0 67.5 77.5 88.5 95.5	565 437 373 323 281 232 167 101 .033 .008	658 527 455 413 391 339 265 191 117 .022	620 544 492 477 474 419 357 198 130	570 534 488 500 505 457 409 206 138 -016	473 484 476 506 537 496 354 146 003 013		122 123 124 125 126 127 128 129 130 131	3.0 10.0 25.0 41.0 52.5 62.5 72.5 78.0 85.3 94.1	.271 .107 .007 033 025 022 009 .015 .047	.292 .124 .009 035 029 030 020 .008 .043	275 -11048 -0443 -0444 -030 -044	.273 .110 005 050 045 056 057 012 .027	.244 .089 022 065 057 078 102 042 .009	
755 56 57 58 59 60 61 62 63 64	2.0 6.9 15.0 27.5 49.0 50.0 59.0 67.5 86.5 94.6	 417 356 330 319 294 264 212 040 .038						132 133 134 135 136 137 138 139 140	3.0 10.0 25.0 41.0 52.5 62.5 72.5 83.4 94.0	 .117 .018 012 006 .024 .071 .147	 .129 .023 009 004 .027 .094 .156	 .116 .009 024 012 .019 .098 .158	 .115 .009 025 012 .019 .100 .163 .052	.093 010 041 024 .006 .093 .157	
665 . 66 67 68 69 70 71 72 73 74 75	2.0 6.0 15.0 27.5 40.0 50.0 59.0 67.5 77.5 87.2 96.8	413 341 290 276 283 264 232 175 033 .028	456 396 344 332 338 318 285 267 187 056	395 383 358 348 366 350 318 306 220 070 016	357 361 347 370 375 349 325 320 206 072 020	283 317 317 345 410 380 349 343 214 082 031	-	141 142 143 144 145 146 147 148 149	3.0 10.0 25.0 41.0 52.5 62.5 72.5 84.0 92.0	.261 .103 .021 002 .010 .033 .080 .155 .089	.282 .114 .023 003 .009 .035 .088 .160	.270 .105 .012 013 .001 .026 .084 .155 .082	.275 .107 .012 011 .002 .026 .084 .160	.259 .096 .002 022 008 .016 .079 .153 .076	
80 81 82 83 84	2.0 6.0 15.0 27.5 40.0 50.0 59.0 67.5 88.3 94.2	283 267 234 224 227 221 194 178 148 078	305 297 248 239 244 243 216 203 179	263 282 240 232 245 250 228 202 121	243 271 2,2 216 23' 230 211 217 209 128	199 239 222 194 205 232 189 193 216		150 151 152 153 154 155 156 157	3.0 10.0 25.0 41.0 52.5 62.5 72.5 84.9	.220 .090 029 048 033 .023 .113	.244 .108 014 061 046 .019 .128	.245 .112 026 080 065 .014 .135	.257 .125 023 084 068 .017 .145	.253 .128 020 101 081 .017 .151	
85	34.6	010	-,102			135 VFIDENT	i		L l	1	- Jana	VÁCÁ,	آ صمہ		

TABLE 78

 $\left[\Lambda = -45^{\circ}, \ \delta_{a_{n}} = 9.8^{\circ}, \ \alpha = 7^{\circ}\right]$

CONFIDENTIALLOWER SURFACE															
┢	Per- Mach Number							\vdash	Per- Mach Number						
Tube	cent chord	0.60	0.80	0.89 0.925		0.96		Tube	cent	0.60 0.80		0.89 0.925		0.96	
A 1 2 3 4 5 6 7 8 9 10 11	2.0 6.0 15.0 27.5 40.0 50.0 59.0 67.5 77.5 87.5 96.0	 -0.165 136	-0.282 264	 -0.349 -363		 -0.517 532		86 87 88 89 90 91 92 93 94	3.0 10.0 25.0 41.0 52.5 62.5 72.5 84.0 94.0	 -0.021 +.009	 -0.058 046	 -0.079 071	 -0.136 129	 -0.155 159	
B12 13 14 15 16 17 18 19 20 21 22	2.0 6.0 15.0 27.5 40.0 50.0 67.5 77.5 88.0 95.3	668 611 501 392 298 202 120		626 640 621 572 518 444 303				95 96 97 98 99 100 101 102 103	3.0 10.0 25.0 41.0 52.5 62.5 72.5 86.3 94.5	 .040 019 021 028 .004 .005	 .009 056 064 069 038 036 037	 006 075 090 090 054 049	 038 113 137 135 099 104 104		
C23 24 25 26 27 28 29 30 31 32 33	2.0 6.0 15.0 27.5 40.0 50.0 67.5 77.5 88.0 95.3	886 883 765 671 588 439 360 297 238 140	991 932 865 685 577 567 480 368 287 206	952 898 845 743 627 564 549 465 343 188	757 768 723 715 621 574 508 417 225	793 816 763 740 736 686 581 547 387 258		104 105 106 107 108 109 110 111 112	3.0 10.0 25.0 41.0 52.5 62.5 72.5 85.1 94.6	.592 .326 .085 012 .017 .013	.695 .423 .161 	.722 .447 .177 054 024 031 026	.702 .428 .156 082 053 061	.707 .436 .167 073 040 052	
D34 35, 36 37 38 39 40 41 42 43	2.0 15.0 27.5 40.0 50.0 67.5 77.5 87.5 94.2	-1.477 655 513 481 401 285 167 108 078	-1.184 -1.010 696 503 422 395 204 150 114	-1.135 994 838 575 451 320 176 117 113	-1.184 -1.076 -1.003 832 559 323 135 084 093	-1.077 998 972 939 866 413 176 077 083		113 114 115 116 117 118 119 120 121	3.0 10.0 25.0 41.0 52.5 62.5 72.5 87.4 94.2	.551 .382 .191 .092 .046 .059 .023	.581 .392 .201 .094 .042 .032 .032	.597 .410 .221 .112 .065 .042 .058 .004	•574 •390 •202 •092 •038 •024 •047	.582 .398 .213 .105 .048 .033 .050	
E 44 45 46 47 48 49 50 51 52 53 54	2.0 6.0 15.0 27.5 40.0 50.0 59.0 67.5 77.5 88.5 95.5	-1.431 -1.452 -1.124 483 410 353 286 221 139 060 062	-1.529 -1.472 -1.266 675 470 387 305 245 172 105	-1.336 -1.292 -1.196 -1.105 840 474 217 171 131 102 096	-1.195 -1.159 -1.088 -1.025 985 831 297 210 180 126	-1.119 -1.049 987 970 912 889 590 234 209 142 135		122 123 124 125 126 127 128 129 130 131	3.0 10.0 25.0 41.0 52.5 62.5 72.5 78.0 85.3 94.1	.581 .382 .204 .108 .083 .057 .054 .060 .070	.586 .393 .221 .115 .087 .051 .043 .049 .064	.586 .391 .213 .117 .086 .047 .032 .044 .062 .039	.585 .391 .213 .116 .085 .041 .022 .026 .058	.481 .388 .213 .116 .084 .036 .009 .025 .051	
F55 56 57 58 59 60 61 62 63 64	2.0 6.0 15.0 27.5 49.0 50.0 59.0 67.5 86.5 94.6		 -1.472 -1.178 705 535 416 330 266 122 090	-1.279 -1.181 -1.094679461359271146129	-1.247 -1.067 -1.024 931 04 409 316 166	-1.041 970 940 904 755 441 332 180 158		132 133 134 135 136 137 138 139 140	3.0 10.0 25.0 41.0 52.5 62.5 72.5 83.4 94.0	 .382 .218 .124 .094 .098 .134 .177	.396 .221 .135 .102 .108 .145 .190	 .399 .225 .135 .103 .111 .151 .197	 .399 .226 .137 .104 .113 .153 .199 .032	-398 -227 -138 -106 -117 -157 -206 -031	
G65 66 67 68 69 70 71 72 73 74 75	2.0 6.0 15.0 27.5 40.0 50.0 59.0 67.5 77.5 87.2 96.8	-1.389 -1.348 841 480 420 361 347 253 190 133 150	-1.342 -1.322 -1.031 701 490 411 341 281 204 115	-1.297 -1.185 -1.121 691 626 515 395 332 231 161	-1.162 -1.094 991 789 566 594 442 347 239 175 151	-1.049 -1.004 893 816 485 543 498 360 237 160 138		141 142 143 144 145 146 147 148 149	3.0 10.0 25.0 41.0 52.5 62.5 72.5 84.0 92.0	.575 .368 .208 .131 .108 .099 .147 .193	.592 .387 .224 .143 .117 .142 .167 .209	.601 .396 .232 .149 .122 .1 ¹ 3 .171 .215	.605 .400 .238 .153 .126 .140 .174 .222 .104	.606 .403 .243 .158 .132 .152 .180 .229	
H76 77 78 79 80 81 82 83 84 85	2.0 6.0 15.0 27.5 40.0 50.0 67.5 88.3 94.2	-1.559 684 518 407 356 324 293 286 303 221	367 336 328	-1.209 -1.070 672 447 367 347 310 315 419 303	-1.079 986 732 470 367 319 280 278 455 296	971 897 723 401 378 302 252 237 470 285		150 151 152 153 154 155 156 157	3.0 10.0 25.0 41.0 52.5 62.5 72.5 84.9	.568 .347 .043 .083 .060 .097 .178	.088 .067 .108 .201 .039	.607 .390 .257 .093 .060 .115 .220 .042	.612 .401 .240 .099 .072 .123 .235 .053	.617 .410 .253 .109 .079 .133 .251	